

AHMED IBRAHIM M. AL BALUCHI

**PROPOSED BUDGETARY REFORM FOR
MINISTRY OF EDUCATION :**

With emphasis on Performance Evaluation

SUPERVISOR : DR. S. AL MUTAWAA

READERS : DR. T. GURSOY

: DR. S. TUREN

PROJECT SUBMITTED TO THE UNIVERSITY OF BAHRAIN
COLLEGE OF BUSINESS ADMINISTRATION
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER IN BUSINESS ADMINISTRATION

96/1
T
A
AHMED I. AL BALUCHI



**PROPOSED BUDGETARY REFORM FOR
MINISTRY OF EDUCATION**

With emphasis on Performance Evaluation

SUPERVISOR : DR. S. AL MUTAWAA
READERS : DR. T. GURSOY
DR. S. TUREN

1992

**PROJECT SUBMITTED TO THE UNIVERSITY OF BAHRAIN
COLLEGE OF BUSINESS ADMINISTRATION
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF
MASTER IN BUSINESS ADMINISTRATION**



*"TO MY BROTHER MOHAMMED,
WIFE AND DOUGHTER "*

TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	
CHAPTER ONE: INTRODUCTION	
1.1 Procedures of the Research	1
1.2 Importance of the Research	4
1.3 The Objective of the Research	5
1.4 Research Methodology and Sources of Data	6
CHAPTER TWO : REVIEW OF LITERATURE	
2.1 Definition of PB	9
2.2 Framework of PB	11
2.3 Performance Indicators	32
2.4 PB and Audit	48
2.5 Historical Background	52
2.6 Evaluation of PB	66
CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS	
3.1 The Budget Law	72
3.2 Government Budget Preparation Process	76
3.3 Description of Ministry of Education	81
3.4 Disadvantages and Advantages of Traditional Budgeting	93
CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM	
4.1 Introduction	98
4.2 Developing a Mission	100

4.3	Setting Objectives	101
4.4	Crafting a Strategy	106
4.5	Developing of Performance Indicators and Measures	109
4.6	Program Structuring	118

CHAPTER FIVE : APPLICATION OF THE PROPOSED SYSTEM

5.1	Introduction	124
5.2	The Basis for the Calculation of the Schools Education Costs	125
5.3	Measurement of Effectiveness	129
5.4	Input Indicators	130
5.5	Process Indicators	133
5.6	Output Indicators	136

CHAPTER SIX : SUMMARY AND CONCLUSION

6.1	Summary	137
6.2	Conclusion	143

BIBLIOGRAPHY

APPENDICES:

- Appendix 1 : Budget Law No.1 for the year 1975
- Appendix 2 :: Organisation Chart of MOE
- Appendix 3 : Budget Classification Structure of MOE

ABSTRACT

ABSTRACT

Natural resources are scarce and the need for these resources is growing. As a result, there is a need to utilise these resources in an efficient manner to achieve the government's social and economic goals and objectives. However, the traditional budgetary system as applied in the government, mainly satisfies two objectives only; control and accountability. Therefore, there is a need to modify the current budgetary system to meet, in addition to control and accountability, other objectives such as measurement of efficiency and effectiveness.

Program Budgeting (PB), which is budgetary system that focuses on the purposes of government activity and the efficiency and effectiveness of that activity, is described and evaluated. Despite PB's major advantages, it has failed in all countries that applied it because of the weaknesses that are inherent in this type of budgetary system.

Furthermore, the traditional budgetary system, as applied by Ministry of Education (MOE) was evaluated. Finally, an alternative budgetary system was introduced and performance indicators were developed and applied to MOE expenditure for the years 1988, 1989 and 1990. The proposed budgetary system is a mixture of both the traditional budgetary system and PB system.

CHAPTER

ONE

Chapter One

Introduction

1.1 PROCEDURES OF THE RESEARCH

Although the available national resources are scarce, there is a growing public demand for more and better services to be provided by the Government Departments. This increases the need to manage existing resources in a better manner. The government should, therefore, become more concerned about the way it manages its money, personnel, facilities, and assets. This concern is about how to make more effective and efficient use of these resources.

The major goals of the government are to ensure that available resources are used to satisfy the most important public needs, and that these resources, are managed effectively to meet the goals and objectives established for the Government Directorates; and that they are used efficiently to maximise the output of work per unit of expenditure. One of the most important resource management tools in the government is budgeting which can be defined as the orderly presentation of the anticipated results of a plan, project, or strategy (Sweeny and Rachin. p.p. 2). However, the traditional budgetary procedure used in Bahrain is not structured according to the criteria mentioned above (i.e. efficiency and effectiveness). Its main goal is to control the budget allocated to various Government Directorates, and to hold them accountable for this budget.

CHAPTER ONE : INTRODUCTION

- 2 -

In this research the Program Budgeting (PB) will be evaluated as an alternative to the Traditional Budgeting. A detailed literature review of PB is presented in Chapter two. This chapter covers the experience of United States and U.K. in implementing the PB. The chapter includes a discussion of the key elements and considerations of PB; this includes the issues analysis, cross-walk, change analysis, annual calendar, systematic analysis, information analysis and the definition of a program. The development of the performance indicators and program structuring are the most important factors to the success of PB. These two factors are covered in detail in two separate sections of Chapter two. Finally, the chapter concludes with identifying the costs and benefits of the PB, and the reasons that lead to its failure in most of the countries that have implemented it, including U.S. and U.K.

Chapter three describes the current budgetary process in the Government. A review of the main clauses of the Budget Law Number 1 for the year 1975 is presented. A description of the Ministry of Education (now and here after it will be refereed to as MOE) organisational structure, goals and objectives and budget preparation process is also covered under this chapter. Finally, the costs and benefits of the traditional budgeting system is covered.

Due to the difficulties faced by the various countries that tried to implement PB, and the short comings of Traditional Budgeting (TB), a proposal of a new budgeting system that tries to combine between the above two mentioned systems (PB, TB) is presented in Chapter four. The objectives, the program structure, and other key elements of the proposed system are also covered in chapter Four.

CHAPTER ONE : INTRODUCTION

- 3 -

The application of the proposed budgetary system on MOE is presented in Chapter five. MOE's actual expenditure for the last three years is analyzed for the purpose of computing efficiency measures.

Chapter six includes the research Summary and Conclusion.

1.2. IMPORTANCE OF THE RESEARCH

Although the resources (financial, skillful and trained manpower, and other natural resources) available to the Government are scarce, however, the need for these resources is expanding as a result of the State's policy to increase the quality and quantity of the public and social services provided to Bahrain citizens and also due to the increase in the number of beneficiaries from these services.

Accordingly, there is a vital need to utilize these resources in a manner that is most effective and efficient. The current traditional budgeting system used by the government does not provide the basis to control and measure the Ministries and Government Departments' efficiency and effectiveness in utilising the resources available to them. This is due to the fact that the current budgetary system stresses control and accountability while ignoring other important informational needs (for example, what the Ministries are doing, why they are doing it, and how well are they doing it).

The above discussion does not imply that control and accountability are not important. Of course, they are. But, they can be achieved under a different type of budget format which also produces additional information that will aid in better allocating and utilising Bahrain's scarce resources. Therefore, the importance of this research is to propose a system that provides such important information or, while maintaining, control and accountability as vital elements of the budgeting process.

1.3. THE OBJECTIVE OF THE RESEARCH

The primary objective of this research is to propose a budgetary reform for the Ministry of Education. A proposal that is intended to lead to a better utilisation of the scarce resources available to the Ministry in achieving its educational goals and objectives through the use of efficiency measurements.

1.4. RESEARCH METHODOLOGY AND SOURCES OF DATA

1.4.1. Research Hypothesis

The main hypothesis of this study can be stated as follows :

“There is a budgeting system that provides information necessary to facilitate the computation of effectiveness measures for the Ministry of Education in the State of Bahrain.

1.4.2. Research Sample

The scope of the research is limited to the following areas:

- a) Among the various budgetary systems, this study will examine the Program Budgeting System as an alternative to the Traditional Budgeting.
- b) The budgeting reform actions that should be taken in Ministry of Education (MOE). MOE is chosen for the study because the preliminary interviews with MOE officials have indicated that the Ministry has already taken some steps toward budget reforming.
- c) The research analysis and recommendations will be related to the MOE recurrent expenditures. Capital expenditure is allocated to and controlled by Ministry of Works, Power and Water.
- d) The application of the proposed budgeting System will be limited to the “Schools Direct Cost Program” because of the significant amount of ^{urrent} ~~recurrent~~ expenditure incurred by this program can average, more than 80%

of MOE recurrent expenditure).

During the research, I have faced difficulties in obtaining some of the necessary data because of the following reasons:

- Confidentiality and inavailability of some data (for example, the goals and objectives of various Directorates at MOE, cost per student in MOE schools).
- Reluctance of some employees to provide the data due to the rules and regulations related to the concerned Government Directorates.

1.4.3. Analytical Methods

To evaluate the ability of the proposed system to produce information that can be used for the computation of effectiveness, several measures of effectiveness were used. Those measures are widely known and have been used in the evaluation of the educational activities. The following books were the main sources of effectiveness measures performance indicators discussed in chapter four :

- "Educational cost Analysis In Action: Case studies for Planners", by Coombs P. and Hallak J.
- "Indicators of Educational System", by Johnstone J.
- "Criteria and Methods for Educational Research Reform and Planning", by Vasudivan M.

The performance indicators are divided into three categories, namely; input, process, and output indicators.

1.4.4. Sources of data

In conducting the research, the necessary data will be collected from both primary and secondary sources. The primary data will be collected through interviews conducted with the authorized persons in the concerned Ministries and Governments Directorates. The secondary data will be collected through the review of literature available in the University of Bahrain Library and in the concerned Ministries.

CHAPTER

TWO

Chapter Two

REVIEW OF LITERATURE

2.1 DEFINITION OF PROGRAM BUDGETING

PB does not have a standardized definition of its encompassing nature. Its many aspects include concepts; a system and process; a technique and format; and, in some cases, almost a management philosophy. The following are some useful definitions of PB:

PB is a management decision making system that ties together strategic and long-range planning with conventional budgeting and supporting analysis so that an organization can most effectively assign resources to achieve both its short and long-range objectives. It utilizes a planning and budgeting process in an output-oriented program format, which is oriented to its objectives to facilitate developing and evaluating alternatives. This process ultimately leads to an allocation of resources over a planning period. This is then a basis for constructing a budget (Sweeny and Rachlin - 1981).

Another definition to PB is, a system that seeks to establish the goals and objectives for each major area of an organization's operations. Priorities are determined for the attainment of goals and objectives by executive management and conveyed to operational managers who, in turn, develop possible alternative programs. The total cost of each program is related to the total benefits that would be derived from the program to determine the efficiency of the program. The most effective and efficient programs are selected, integrated into a comprehensive program and implemented (Glynn J. 1987).

CHAPTER TWO : REVIEW OF LITERATURE

- 10 -

A third definition to PB is that it is an approach for focusing on the purposes of Government activity, and the efficiency and effectiveness of that activity, rather than on the level of expenditure on certain items or inputs. It provides a budgetary framework for systematically reviewing the achievement of programs against their objectives as part of the funding process, and for attaining accountability of departmental management for the ultimate results of the expenditure of funds (Department of Finance in Australia - 1985).

2.2 FRAMEWORK OF PROGRAM BUDGETING

A major aim of PB is to convert the annual routine of preparing a budget into a conscious appraisal and formulation of an organization's goals by providing a long-range perspective. A PB framework requires the fusion of strategic and long-range planning with budgeting processes through the use of various structural, analytical and informational elements. A generalized PB system does not exist. In applying PB to an organization, managers must tailor it to the organization's particular context and needs. There are several key processes and elements, however, that are common to most PB systems. (Sweeny and Rachlin, 1981).

2.2.1 PB Process Phases

Program budgeting operates within three basic interlocking and interactive process phases in its annual cycle: planning, programming and budgeting. They have separate time allotments, with reviews and key decision checkpoints at each juncture, providing progressively more detailed views.

The planning phase should provide time for identifying and studying challenges, objectives, and alternatives, and for resolving the basic strategy and program structure. The programming phase should provide time for the assembly and review of detailed planning forecasts (inputs and related outputs in a program structure). The budgeting phase should provide sufficient time to translate the previous efforts into a traditional line-item budget.

a) Planning Phase

The planning phase deals with the development of missions, goals, objectives, and alternatives and with the strategies and general resource allocations for

CHAPTER TWO : REVIEW OF LITERATURE

- 12 -

achieving them over a long-range time frame expressed in a basic program structure. The following are the main elements of this phase:

1) Strategic and long-range planning

The planning phase can be viewed and conducted sequentially. Strategic planning is the first consideration. This means planning for an entity as a whole, not merely adding up the separate plans of the respective parts without a common and guiding thread. When dealing with a company as a whole in industry this strategic planning is sometimes referred to as corporate planning.

Strategic planning is basically concerned with the long-term destiny of an organization. It is the guiding light. Whatever the organization's size, its destiny will generally depend upon two, three, or four key decisions. If they are right, the organization will be well positioned to take advantage of most opportunities or to solve most problems that come along. If they are wrong it may not just mean having the wrong foot on the playing field, but playing the wrong sport in the wrong stadium. The results can be a serious deterioration in, or the demise of, an organization. (Sweeny and Rachlin, 1981).

Strategic planning consists of identifying what those few decisions are and getting them right. Although strategic planning is deceptively simple, this does not mean that it is easy. Difficulties arise because the decisions are pivotal, with big impacts, and they depend largely on judgment and intuition in an uncertain future. A strategic plan should summarize in very broad terms and qualification what the key decision makers believe the organization should look like in the next 5-10 years, together with a realistic statement as to how it will be done. Apart from the intrinsic value of the strategic plan, a sense of consensus and cohesion in an organization generally follows its development, with more members pulling in the same direction and at the same speed. This is especially so if the planning process was interactive

CHAPTER TWO : REVIEW OF LITERATURE

- 13 -

up and down the line. If an organization is big and diverse, the major component entities should so develop supporting strategic plans, which, of course, must ultimately be governed by the organization's overall requirements and program structure.

In all cases, the initial broad focus of strategic generates the major options and aids in decisions on the missions, objectives, policies, and major PB program groupings and on the general acquisition, use, the disposition of resources necessary to attain the objectives. This must be done in the realistic context of an organization's status quo and critical issues. This then serves as a basis for the more detailed planning and qualification of the planning phase, which is sometimes referred to as long-range planning. It generally represents further translation toward implementation and is sometimes not much more than additional long-range details of the chosen options.

The long-range planning, then, as distinguished from strategic planning, moves closer to the planning of current operations and of all the units of an organization. This further planning could include completing the PB program structure hierarchy, additional analysis of alternatives, data development, inclusion of more organizational units, further operational and functional area considerations, and generally more details. In industry, it might also include product and market planning, finance and manpower planning, and research and development and manufacturing planning; these would be expressed within the chosen program structure, with their respective resource allocations.

The major considerations for the various kinds of planning can begin with identifying and studying the critical issues or challenges facing an organization or planning unit that revolve around its competition problems, needs, threats, opportunities, strengths, and weaknesses. Various alternatives and strategies are then generated in response to the issues. This process also serves as a creative stimulus by

CHAPTER TWO : REVIEW OF LITERATURE

- 14 -

exposing the decision makers to situations demanding solutions.

The evaluations and directions that result are measured against the existing goals and objectives in order to confirm, change, or update them as well as the strategic responses. The strategic responses are then expressed in output-oriented programs, with estimates and data that are not detailed. Again strategic planning would have the most general data, whereas long-range planning would start to provide more details and forecasts to fit into current operations.

The next significant level of detail would be accomplished in the next phase programming. In some planning systems this activity could still be regarded as being in the planning phase, as part of the long-range planning mentioned previously, and would involve the assembly and review of detailed long-range plans. This distinction is not critical, as long as a planning system's process and data provide a comprehensive decision-making base in increasing detail and in a program structure for building a connected, supportive, and consistent budget. In many cases, however, the details of the long-range plans are too limited or disconnected for easy conversion to a budget. The programming phase, in particular, addresses such deficiencies.

The planning and programming phases as described here are essentially parts of the same activity, differing primarily in planning detail. The major strategic considerations, however, should be resolved in the planning phase. The key decision makers should be integrally involved in both phases and should review the results before moving to the budgeting phase.

2) Performance indicators

The development of performance indicators is discussed fully in section 2.3. However,

CHAPTER TWO : REVIEW OF LITERATURE

- 15 -

Various issues related to those indicators include (Australia Department of Finance, 1985); indicators :

- 1) Should be oriented toward outputs and outcomes (on impacts).
- 2) Are not automatic decision triggers but focus attention.
- 3) Can be quantitative and / or qualitative.
- 4) Can be expressed in numerical or narrative terms.

3) Program Structure

A program structure is the basic framework of PB. An output-oriented program structure should be established in the planning and should be based on a translation of an organization's fundamental missions, goals, objectives, or purposes. The translation establishes the strategic program classifications in a program hierarchy. The hierarchy ranges from the largest program category classification to the basic and smallest constituents, termed program elements. Each program should represent activities and resources with a common purpose that will produce the same outputs.

The program groupings, however, will not likely conform to an existing organizational structure, and they need not be so constructed. In the early evaluation stages, the programs can preliminarily overlap the existing organizational structure in the deployment of resources. The program structure should provide insights into an organization's objectives, as well as its priorities, according to the allocations made with the programs. The possible overlaps can be resolved in the later stages of the planning phase or in the programming phase. The basic considerations in preparing a PB program structure are provided later in the section on program structuring because of the special significance of this aspect.

CHAPTER TWO : REVIEW OF LITERATURE

- 16 -

4) The definition of a program

The planning-programming-budgeting system as it is now practiced by the federal government of U.S. seeks to define programs within departments and agencies. The classification is broken down into three groups: Program categories, program subcategories, and program elements. The program categories are defined by each department or agency to embrace groupings that serve the same broad objectives.

The Department of Health, Education and Welfare, for example, defines four program categories in addition to executive direction and management: education, health, social and rehabilitation services and income security. Within "education" there are six subcategories (Burkhead and Miner, 1971) :

- Development of basic skills
- Development of vocational and occupational skills
- Development of academic and professional skills
- Library and community development
- General research (nonallocable research)
- General support

Within "Development of vocational and occupational skills" there are, for example, three program elements:

- Improving the education of the general population
- Improving the education of the economic and socially disadvantaged
- Improving the education of the physically and mentally handicapped.

It is not intended that the program structure will necessarily reflect existing organization structures. Where possible, it is hoped that research activities can be placed within a program format, but in some instances research and development activities may be of such generalized character that they are listed as a separate program

CHAPTER TWO : REVIEW OF LITERATURE

- 17 -

subcategory or program element. For any one departments, program categories would be expected to be fewer than ten. Subcategories might number from forty to fifty and program elements several hundred (Burkhead and Miner, 1971).

P.B. is intended to direct attention to the importance of trade-offs within programs and possibly among programs. For example, if a health program objective was to reduce the death rate, then it is better to allocate resources to a program element where death reduction costs are lower than that associated with another program element. Therefore, the definition of a program becomes crucial in establishing the limits of the trade-offs that can occur.

5) Multiyear program forecasts

Detailed long-range forecasts of inputs and outputs resulting from the strategic and long-range planning that includes the budget year should be developed in a program format along with as much history as is feasible. In PB terminology, this forecast has also been called a multiyear program and financial plan (PFP). These forecasts show the probable impact of current decisions on future revenues and expenditures for all programs from the broad program category level to the narrower program element level. Although these forecasts are in considerable detail, they are less detailed than a budget and are the results of completing the programming phase. They provide all the pertinent data enough detail for the traditional budget preparations.

In short, the PFP is the basic quantitative and comprehensive statistical planning document of PB. It relates the quantitative measures of the program outputs to the respective operating and capital expenditures. It is generally a statistical tabulation, covering a planning period, as outlined in Exhibit 2.1 at a program category level. Expenditures are indicated only for the budget year for purposes of simplicity.

CHAPTER TWO : REVIEW OF LITERATURE

- 18 -

**EXHIBIT 2.1 : OUTLINE OF A MULTIYEAR PROGRAM
AND FINANCIAL PLAN (\$ '000)**

DESCRIPTION	BUDGET YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL COSTS
EXPENSE OUTLAY						
Salaries	15000					
Materials	10000					
Maintenance	3000					
Utilities	2000					
Depreciation	2000					
Travel	5000					
Rent	7000					
Etc.						
TOTAL EXPENSES	44000					
CAPITAL OUTLAY						
Buildings	3000					
Property	1000					
Equipments	5000					
Fixed capital	9000					
Working capital	4000					
TOTAL CAPITAL	13000					

Source: "Handbook of Budgeting"; 1981, p. 176

In industry, the PFP could include profit and loss, cash flow, and capital expenditure statements or tabulations. The outputs would include the sales of key related product or service areas, with their respective profits and returns.

In nonindustry organization where the outputs cannot be measured in monetary terms, it is also necessary to conceive of output indicators in addition to a program structure. This is necessary to measuring in physical terms the outputs of the various programs. The output measure chosen should be the most important quantitative performance indicator of a program. For example, for an on-the-job training program, it could be the number of workers trained; for a health program, it could be lowered disease incidence, for highway construction, it could be the

number of lane miles built or reduced traffic accidents per mile; and so forth.

b) Programming phase

The term programming can possibly be confusing in PB jargon and should be differentiated from the term program. The creation of the major PB program groupings is generally handled in the planning phase, with the term program indicating an output-oriented strategic classification.

On the other hand, programming primarily deals with the more detailed application of resources (manpower, materials, facilities, and equipment) and schedules to the plans and programs. That is, it is the programming of resource expenditures for the programs in significant detail. It is the level of detail after planning that bridges the gap to budgeting and reflects all of the strategic decisions and projected expenditures in a program format for a planning period. In a sense, it represents a multiyear budget in a program format.

Objectives should be well defined by the programming phase, but they should still be challenged. The attention should now be focused on translating the preferred alternatives of implementation and the deployment of resources. Qualification data in considerable detail are necessary at this stage because the budgeting consequences of the approved programs should be anticipated. Assembly of the various multiyear financial forecasts of the planning period is completed in this phase according to all the program groupings, with the resources allocated within financial capabilities. The cross-walks are also completed in this phase (see key elements).

After the programming phase is completed and approved, preparation commences on the budget or the annual profit plan, as it is often called in industry. The first year of the multiyear forecasts in the PB format is now fully translated into a regular

line-item budget format through the cross-walks. Such details significantly facilitate the preparation of the budget with a soundly conceived foundation regarding the likely future requirements. It is expected that much of the annual budget debate can take place in the programming phase and can result in the basic budget assumptions, guidelines and decisions.

c) Budgeting phase

In the budgeting phase, final allocations of resources and more detailed reviews are made in a traditional line-item format to accomplish and control the approved programs for the first year of the plan. They are based on the latest information, the cross-walk translations (see elements of PB) and the basic budget decisions made in the programming phase. Here again, there should still be an allowance for decisions that may be necessary to modify program choice but, obviously, at this late stage, changes must be judiciously applied. If the budget changes are significant, the multiyear forecasts of the programming phase should be recast promptly in order to balance inputs and outputs and to view the ramifications to allow for possible strategic adjustments.

2.2.3. Key elements of PB

A PB system included various key structural, analytical, and informational elements in the process leading to a budget. Although there is some overlap among them, and although they are balanced differently in some PB systems, they are presented here as separate entities for clarity and emphasis. They include various key activities and components that should take a written form for proper communication and reference (Sweeny and Richin, 1981). The following is a brief discussion of some of the most important elements:

a) Issue Analysis

A continual conducting of key studies is necessary to provide an analytic foundation for decisions made in a PB system. These studies include the identification and review of critical issues and challenges facing an organization that must be made periodically and injected into a PB cycle for strategic consideration, addition, confirmation, or rejection. This can be part of the strategic planning and its periodic updating. This activity has been referred to as an issues analysis. In PB jargon, it has been termed special studies, which are basically of two kinds. Some are carried out for the purpose of resolving issues in the budget year, whereas others have time frames that extend beyond the budget year in order to serve the development of future recommendations and actions. Without these inputs, the process of planning, programming, and budgeting can become overly procedural, with limited vitality and substance.

b) Cross-Walk

If a program structure differs from an existing budget structure, as is very likely, then a cross-walk reconciliation, or cross-classification, must be established to connect them and to transform the first year of the PB format into a line-item budget. By the use of a cross-walk, the information from the existing data base can first be allocated and programmed into the strategic program groupings more appropriate to policy making and later regrouped for implementation and control.

The cross-walk allows the movement of data between planning and budgeting. The approach can be an elaborate one, utilizing an extensive reconciliation between a PB budget coding and a regular budget appropriations coding and the use of a computer. It also can be a simple tabular and manual cross-classification in a two-dimensional array with a less elaborate reconciliation, especially used for

CHAPTER TWO : REVIEW OF LITERATURE

- 22 -

initial purposes as shown in Exhibit 2.2. It need only be constructed for the budget year.

EXHIBIT 2.2 : SAMPLE EXPENDITURE CROSS-WALK: YEAR 1

TRADITIONAL COST CATEGORIES		CROSS-WALK Totals	PB FORMAT	
Account Number	Account		Program Category 1	Program Category 2
100	Salaries	\$20000	\$ 15000	\$ 5000
200	Materials	45000	10000	35000
300	Maintenance	4000	3000	1000
400	Utilities	4000	2000	2000
500	Depreciation	9000	2000	7000
600	Travel	10000	5000	5000
700	Rent	57000	7000	50000
Etc.	Etc.			
	OPERATING EXPENSES OUTLAY	149000	44000	105000
1100	Buildings	15000	3000	12000
1200	Property	8000	1000	7000
1300	Equipments	14000	5000	9000
1400	Fixed capital outlay	37000	9000	28000
1500	Working capital outlay	12000	4000	8000
	TOTAL CAPITAL	49000	13000	36000

Source: "Handbook of Budgeting"; 1981, p.718

Exhibit 2.2 shows an expenditure cross-walk tabulation for year 1, or the budget year, for two program categories. A reconciliation could even be carried down to a program element level. (Distinctions between the level in a program, hierarchy will be discussed later). However, this is very much a circumstantial decision in which judgment must be applied for particular needs and merits. Certainly some kind of cross-reference must be maintained to construct and explain, if necessary, the building of the larger program categories from their basic program elements and resource allocations. Most budget submissions would not likely include cross-walks at a detail level below that of a program category, the largest program grouping used.

The cross-walk tabulation indicated how each traditional line item and its account number (shown in rows) are allocated and cross-classified to the various program

CHAPTER TWO : REVIEW OF LITERATURE

- 23 -

categories (columns) for the budget year through the same cross-walk total. Also note that program category 1 items back to the multiyear program forecast tabulation shown in Exhibit 2.2.

The PB format does not eliminate the need for the more traditional formats dealing with administrative, operational, organizational, and performance requirements. The system is not intended or designed to increase the efficiency in the performance of daily operations or to improve the administrative control of the expenditure funds. It primarily ties planning, analysis, and budgeting together. It is necessary, however, that the various budgetary formats used be connected to a PB format by a cross-walk.

c) Change analysis

Change may be characterized as the lifeblood of PB. The handling of change keeps a PB system alive and lively. It is especially necessary to determine periodically the need for strategic redirection. Provisions should be established in the annual planning and budgeting processes for necessary revisions. This should include at least a definite review period in the planning phase and flexible procedures and time allowances through the budgeting phase and ad hoc situations. It is difficult to schedule exact times throughout the year because of the over-present uncertainties and the interlocking and interacting nature of the PB phase that provoke change. For certain, the major issues should always be resolved before considering the dependent ones, and flexibility must be available. In PB terminology, these revisions, particularly major ones, have sometimes been referred to as change proposals.

The changes may be the result of shifts in significant external and internal factors or assumptions. In industry, for example, significant changes could come from

new information dealing with technology, competition, customers, or pricing; from more detailed analyses of resource requirements or outcomes; and so forth. A proposal for change, therefore, might cover a new product, service, or approach; a revision of an existing program or its cancellation; and so on. It would include the quantitative ramifications, the rationale, and all the relevant information. This could serve as a basis for redoing the multiyear program forecasts or could stand alone as an interim revision for further reflection and later incorporation. Such considerations, as well as a format, depend on the particular circumstances of an organization. A change analysis should contain at least an outline of the major considerations and information, including summary quantification impacts.

d) Annual calendar

An annual PB cycle must be established, with regular intervals for the planning, programming and budgeting phases. This is to allow sufficient time for analysis and decision making at all levels of management.

An annual PB cycle should provide a year-round process of addressing program objectives, performances, and costs with a disciplined approach to change. It should also allow sufficient time for the program-oriented data to be translated into the budgeting phase with the required control details. Appropriate checkpoints should be included in order to ensure that all the essential steps are taken and that current reviews, revisions, and recommendations are given consideration at appropriate times in the cycle.

e) Systematic analysis

An outstanding feature of PB is the emphasis on analysis throughout all its phase.

Systematic analyses must be performed to clarify the conceptual framework in which decisions are made, to define possible alternative objectives, and to explore the cost and effectiveness of alternative courses of action. The system itself is an analytical tool.

d) Information systems

Program budgeting should derive its information primarily from existing management records and practices. The existing data base and accounting systems should provide information (or be adapted) to the planning, programming, and budgeting phases in a program structure hierarchy. It should allow the basic forecasting, implementation, and analysis, as well as the progress reporting and control with updating procedures. The basic requirements need not be difficult to set up. Various considerations for setting up a PB system are provided in the section on installation considerations.

2.2.5 Other Implementation Considerations

The Process phases key elements and of PB have been covered in the previous sections. There are additional aspects to be taken into account when installing a complete, modified, or partial utilization of PB in an organization. They involve information and accounting systems, assessing and organizing, tailoring and staffing. In many organizations, a PB installation will be more a process of consolidating and systematizing the ingredients already in place (Sweeny and Rachline, 1981).

a) Information System

A critical ingredient of PB is data. An inadequate information system can be a

CHAPTER TWO : REVIEW OF LITERATURE

- 26 -

major constraint to PB's operation effectively. A PB system may require restructuring data from existing systems, modifying some of the existing systems, or developing new supporting systems.

Many of the required information sources, reporting subsystems, and processing capabilities already exist in most large or up-to-date organizations. One may employ expedient stopgap approaches to get a PB system started, but, in all cases, the primary effort is with strategic and long-range planning rather than with the mechanical manipulation of data.

b) Role of Program Budgeting

Program budgeting is not a management information system. In some instances management information systems were undertaken as a substitute for major PB features. However, PB is not synonymous with the installation of a new computer system or related techniques for making management data more readily available. It is not the sole, or even the prime reason, for an organization to undertake company-wide information systems improvement programs. Even though a good management information system is very useful to PB operations, alone it lacks the planning emphasis, program structuring, and alternative analysis that are so vital to PB. Increasing the amount of hardware, firepower, and automatic processing does not provide these key PB elements. If an organization has the sophistication to consider a better link between its planning and budgeting systems, it very likely has the existing data systems adequately set up to utilize or readily adapt to PB techniques.

c) Program Budgeting Matrix

The existing information system should allow the construction of a resources and cost matrix in a program format. It should allow displays and summaries by program, cost organization unit, function, or resource category in sufficient detail and validity to make decisions. Of course, if any of the existing systems are inadequate, they should be improved or eliminated, irrespective of installing a PB system.

d) Management's Needs

Most management information system accomplishments have been in the areas of mechanization or computerization of record keeping and other routine operational activities and with middle-management-type problems. They have been structured primarily for control and do not adequately serve the multiple needs of all levels of management. Relatively little is still well developed in the areas of information and analytical support for the planning and policy decision making of the PB type.

e) Accounting System

It is unnecessary to change an existing accounting or reporting system to conform to a program structure; in fact, it may be undesirable. A PB program structure is not a static framework to be maintained despite significant external and internal changes or new strategic insights. The basis of PB is a periodic reexamination of program results in order to evaluate and restructure programs and objectives. A PB system and structure, like all planning systems, must be dynamically oriented to be valuable. Since programs and objectives are subject to change, it would be very disruptive to parallel changes each time with the accounting and reporting systems. Moreover, it would be equally confusing to make organizational changes

based solely on a program structure. If an organization is comfortable and knowledgeable with its existing accounting system, and it can be used, PB can be more smoothly introduced.

f) Cost Aggregation

The existing accounting system allow data to be consolidated into the large aggregative program categories from a program element level. Both direct and indirect costs must be in proper form and appropriately coded. The adjustment of the data should be kept to minimum when accumulated into the large categories. Methods should be developed to eliminate arbitrary allocations of indirect costs in the beginning. Moreover, the system should permit a summation of detailed cost elements from all cost elements to responsible organization units (indicating the magnitude of the work load and resources each program requires). Also, appropriate coding or initial tracking for a cross-walk should be developed for transforming a PB format into an existing budget format.

g) Assessment and Organization

Before organizing a PB system, it is helpful to take an inventory of the existing decision-making processes, including assessment of the analytical capabilities and data system operations and support. The following sampling of questions could be included:

- What are the objectives and key issues of the organization? Strengths and weaknesses?
- Who makes the strategic decisions? The chief executive officer? The board

CHAPTER TWO : REVIEW OF LITERATURE

- 29 -

of directors? Individuals? A committee? At what level?

- Who brings the strategic issues to the decision makers, and how? What is the size and experience of the analytical staff?
- What are the external influences and constraints in the general managerial processes, and how are they handled?
- What special studies, policy issues, analyses, and data are considered?
- Who prepares and analyzes them? How far into the future are these studies and forecasts generally made? How are benefits measured? Are the current data valid and up to date? Can history be reconstructed? What kinds of forecasts or projections are generally made from the data base? Where and how are data collected, processed, and displayed?
- What controls, measurements, and appraisals exist to indicate actual costs, benefits, and accountability?
- What kind of planning exists? How is it coordinated for different programs and resources?
- How is the budget prepared? On what basis?
- What is the timetable for the key decision making in the organization? Is there a regular schedule or cycle for planning and budgeting? For capital requests? For new ventures?

h) Staffing

Most major organizations already have the staff expertise and capability to consider and implement a PB approach without personnel additions. In many instances there are special groups to perform capital projects analysis, venture analyses, acquisitions, make-or-buy analyses, and so on. The central PB coordination in a large organization can be managed by a corporate long-range planning group or a corporate financial group. If the organization is large enough to have divisions, a PB planning coordinator should probably be designated in each division to facilitate the process and gain the necessary commitment. Reporting to a division head is preferable. In addition, the active support and involvement of the head of the organization is essential. To be effective, PB requires strong leadership and interest at the top, especially for the extensive analysis of alternatives. The strategic decision making that PB involves, however, should not be delegated to analysts. The analysts should primarily facilitate the process and fully analyze the ramifications of the chosen options and decision.

There are three ways in which a PB staff can be acquired:

1. It can be recruited from the outside.
2. The existing staff can be oriented and trained for the new approaches.
3. A combination of 1 and 2 can be used.

Because of PB's emphasis on analysis, it requires individuals who have had significant experience with analytical approaches or some related training or education. Planning and financial analysis experience provides a good foundation. These requirements are not necessarily met by new elaborate personnel recruiting education, or training efforts. Generally what is primarily needed is some orientation

CHAPTER TWO : REVIEW OF LITERATURE

- 31 -

and redirection of existing personnel. However, organization should also consider the prospects of some staff additions and the costs and time associated with installing a PB approach.

i) Staff Characteristics

A PB system interdisciplinary in nature and therefore must draw upon many types of specialists or properly experienced generalists. The ideal staff member would have a good quantitative knowledge of macro economics, macroeconomics, mathematics, statistics, engineering, or finance. Experience in budgeting, planning, financial analysis, project management, marketing, or management processes in general is also very helpful. Some line experience, moreover, can be helpful in taking practical approaches. The person should be creative, curious, flexible, communicative, and result-oriented and should have integrity. In addition, it is preferable that the individual have a practical working knowledge of the areas in which the work will be involved

2.3 PERFORMANCE INDICATORS

Having no 'bottom line' is no excuse for failing to manage performance. In the private sector, where profits are not known until after the event, managers use measures and indicators of performance. In spite of the technical difficulties, measuring performance must become embedded in the management culture of the public sector if the quality of services is to improve (Jackson, 1988).

The absence of an unambiguous scale for measuring units of public service outputs does not preclude all empirical analysis of expenditure by governments. Absence of a measure of quantity, for example, in no way inhibits study to the association of observed public expenditures with various characteristics found within spending jurisdiction. Nor does the lack of measures of quantity preclude analysis of social conditions such as levels of or changes in measure of mortality and morbidity or of pupil achievement in relation to public expenditures on public health facilities or education. However, if it is not possible to relate community characteristics to the quantity of particular government services taken or inputs purchased to quantities produced, then it becomes impossible to separate demand from supply elements in the determination of spending and, as a result, also impossible to identify the effects of particular independent variables upon expenditures or the consequences of expenditures. This circumstance explains why most empirical analyses of public sector economic behavior, whether or not their authors recognize it, are studies of factors associated with public spending rather than studies of the demand for or supply of publicly provided goods or services (Burkhead and Miner, 1971).

2.3.1 High Performance Framework

High performance management requires a framework that enables a systematic approach to problem solving-one that will aid policy and priority formation, implementation, monitoring and control. Effective decision-making also requires relevant information. Studies of successful organizations in both the public and private sectors conclude that high performance is associated with a system in which managers, at all levels of the organization, have clear objectives; emphasis is on outputs and not on activities; each person knows what is expected of him or her and knows that they are responsible for specific results (Goold and Campbell, 1987).

The advantages of this approach to management are that defining goals helps to set priorities and helps senior managers to understand how the whole organization fits together in delivering final output. Defining objectives, goals and targets assists in motivating individuals. Unless goals are clear then resource allocation will tend to be arbitrary and the outcome of internal politics. Furthermore, morale is improved if individuals know that they have successfully achieved their goals. In the following paragraphs we will be talking about the differences between performance measures and performance indicators (Jackson, 1988):

2.3.2 Performance measures

Performance measures in the public sector are substitutes for profitability measure in the private sector. They are essentially measures of productivity and efficiency. Whereas the ultimate test of a private sector firm's performance is the bottom line of profit, measuring the performance of public sector organizations (central and local government departments, schools, hospitals, etc.) is more difficult and calls for complex indicators.

It would, however, be a mistake to make too much out of this difference between the public and private sectors. Information about profit performance comes a long time after the events that generate the profits have taken place. Profit is only known once the accounts have been finalized. In the meantime, private sector managers require a series of indicators against which the performance of current activities can be judged. There is, therefore, not as much difference between public and private sector performance management as is often supposed.

2.3.3 Performance Indicators

A distinction is drawn between performance measures and performance indicators. Whilst it is possible to make this difference conceptually, in practice the two concepts tend to merge. Where performance can be measured precisely, reference is made to a performance measure: like reading data from a dial. If, however, as is frequently the case, there is no precise interpretation of the data then it is referred to as a performance indicator: an alarm bell. A performance indicator is provocative and suggestive. It alerts management to the need to consider the issue further. Thus, for example, the per pupil costs in one school might be three times those in another. That piece of data (per pupil cost) is not a measure that one school is three times more efficient than the other. Instead, it is an indicator that further investigation is required to find out why this is so.

Performance measures and indicators are usually expressed in terms of difference or changes rather than as absolutes. The notion of performance, and whether or not it is satisfactory, only has meaning if actual behavior (outcomes) is compared with some predetermined target. Significance is attached to how actual outcomes or the gaps between actual and targets vary for a single service department over time or how they differ between similar departments or organizations.

2.3.4 Performance Indicators classification

Jackson and Palmer, 1988 suggested that performance indicators can be classified according to whether they are:

- * Proscriptive - linked to particular objectives;
- * Prescriptive - negative indicators (it is possible to know when performance is unacceptable but it is more difficult to know when it is acceptable);
- * Descriptive - a multitude of statistics which describe what a department does, in other words, its activities and throughput.

The majority of performance indicators published in the annual Public Expenditure White Paper are descriptive, as too are those published in the annual reports of local authorities. Whereas the unpublished indicators used for internal management are, to a much greater degree, prescriptive.

Performance measures/indicators should not be thought of as a microscope which searches for the hidden elements within organizational life. Like invasive surgery, such an approach is threatening. Instead, it is more useful to think of performance indicators as mirrors which reflect particular aspects of an organization's activities. Each mirror (indicator) is set to reflect a particular facet of activity. The outside world views the organization (or a department) against these mirrors. People inside the organization must ask 'is this a fair and true reflection?' or 'does it, like the fairground mirror, give a distorted picture?'.

2.3.5 Nature and role of performance indicators

While the development of performance indicators is one of the most difficult areas of program budgeting, all aspects of the budgetary and financial management processes will be enhanced as the use of indicators develops over time. It is important to emphasize, however, that the role of performance indicators is to inform judgements rather than to replace them. It is not required or expected that any one indicator, or even set of indicators, will provide a definitive measure of program accomplishment. Rather, their role is in indicating or focusing attention on, relevant areas to identify where corrective action (by individual program managers, the responsible Minister, or the Government, as appropriate) might be required or where more intensive evaluation is needed (PBS, 1985).

There is no such thing as an absolutely correct set of performance indicators. However, there are certain characteristics of what is called "ideal performance indicators", the following are some of these characteristics (Jackson, 1988):

- * **Consistency:** the definitions used to produce the indicators should be consistent over time and between units;
- * **Comparability:** following from consistency it is only reasonable to compare like with like;
- * **Clarity:** performance indices should be simple, well defined and easily understood;
- * **Controllability:** the manager's performance should only be measured for those areas that he/she has control over;
- * **Contingency:** performance is not independent of the environment within which

CHAPTER TWO : REVIEW OF LITERATURE

- 37 -

decisions are made, which includes the organization structure, the management style adopted as well as the uncertainty and complexity of the external environment.

- * Comprehensive: do the indicators reflect those aspects of behaviors which are important to management decision making?
- * Bounded: concentrate upon a limited number of key indices of performance. Those which are most likely to give the biggest pay off.
- * Relevance: many applications require specific performance indicators relevant to their special needs and conditions. Do the indicators service these needs?
- * Feasibility: are the targets based on unrealistic expectations? Can the largest be reached through reasonable actions?

Performance indicators play a number of important roles (Jackson, 1988); those roles include :

- * Monitor program achievement and identify emerging problems.
- * They help to improve management practice;
- * They increase the accountability of management;
- * They provide a basis for policy planning and control;
- * They provide essential management information by enabling activities to be monitored at several levels in the organization to confirm that the intended outcomes of various decisions are being achieved;

- * They can provide the basis of a staff appraisal system.

The performance of a number of entities can be measures ranging from the entire organization, through departments, units and programs to individuals. A single local authority or health authority can be compared with other similar local authorities and health authorities; a local authority service department can be compared with its own performance on a number of indices over time.

2.3.6 Quality and performance

Quality of service is an important element of any performance review. Value for money is not synonymous with economy or effectiveness. Costs can be cut by sacrificing the quality of service.

Whilst the consumer's perception of quality differences is highly subjective, the manager of public services has some idea of the factors that give rise to these differences. Quality differences stem from (Jackson - 1988) :

- * A different degree of technical sophistication or technology used in producing the service;
- * Differences in the quality of materials, workmanship, maintenance used; and
- * The varying quality of the management of service.

For example, when comparing the quality of public sector housing provided by different local authorities, or by the same authority over time, indicators can be

CHAPTER TWO : REVIEW OF LITERATURE

- 39 -

used such as the speed at which housing repairs are completed or how often the lift in a high-rise flat is out of order.

To take some other examples: electricity might be cheap but how often are there power cuts? British Rail might regard its performance has improved if it is increasing the number of passenger miles whilst keeping down the cost of a passenger mile. But how often does the train run? Do passengers have to stand? How often is the train late and by how much? Are there adequate buffet services? Quality and consumer satisfaction are important decision variables and unless they are measured they will not play a part in resourcing decisions.

If consumers are prepared to pay for an improvement in quality whilst cash-limited public spending dictates a reduction in quality then allocative inefficiency will result. Consumer choice is being over-ridden by some other authority. It is little wonder, therefore, that alternative methods of paying for public services, such as user fees, are currently on the policy agenda.

Quality indicators can also be used in an expenditure cutting exercise. It might be that the quality of service being rendered is better than that desired by customers and superior to what they are willing to pay for. Sometimes the quality of service is decided by professional standards and an attitude of mind that says 'we have the best available technology and no one should be denied access to it'. If that was applied to the market place then everyone would be driving in Rolls-Royces. Some means needs to be found for deciding what quality of service consumers and taxpayers are prepared to pay for (Jackson - 1988).

2.3.7 Development of performance indicators

While indicators of workload, productivity, standard of service etc. have important roles to play under program budgeting and program management, efforts must also be made towards developing indicators of efficiency and effectiveness (PBS, 1985):

a) Efficiency Indicators

Efficiency indicators describe the relationship between the resources input by any agency (e.g. staff salaries, administrative expenses, other program expenditure, etc.) and the output produced (e.g. passengers processed through customs). They provide information about the conversion of inputs to outputs (i.e. efficiency of the conversion process, the standard of service, etc.). Because such indicators generally lend themselves to quantification and because much of the information is already part of an organization's management information system, efficiency indicators can usually be developed fairly readily.

b) Effectiveness Indicators

Effectiveness indicators describe the extent to which the impacts of a program's outputs (i.e. its outcome) meet the objective(s) of the program. In most private sector organisations the maximization of profits is a primary objective and the level of profits can act as an important measure of effectiveness. For most public sector organizations, however, no such convenient measure exists. Indeed, the objectives of public sector organizations are often inexplicit, sometimes multiple and may be conflicting. As well, the essentially political nature of many government goals can raise conceptual and practical difficulties in developing satisfactory indicators

of program accomplishment. External factors also may make it difficult to establish a clear and direct relationship between a program's output and its ultimate accomplishment.

c) Cost-effectiveness Indicators

Indicators of both efficiency and effectiveness should be used together since it is possible to efficiently produce a program output which does not meet the program objectives. On the other hand, a program may be effective in terms of the program objective, but may not be most efficient. When a program is both effective and efficient it is considered to be cost-effective. Cost-effectiveness indicators simply combine information on both efficiency and effectiveness and provide an overall "bottom-line" measure of performance which in many ways is analogous to the role of profit in the private sector.

2.3.8 Measuring service outputs

Generally, there is little (if any) sufficiently well-defined measures of service output. This difficulty in measuring service outputs obviously derives from the very notion of a service. Unlike a commodity, a service is not a tangible physical entity and, therefore, cannot be counted in the same way as such entities. Activities can be counted, and so it is possible to measure the number of concerts given, operations performed, teeth extracted, classes taught, and so on. These enumerations are not deemed satisfactory indications of service-outputs for two interrelated reasons: they do not discriminate sufficiently for differences in quality, and they may not reflect the service output actually desired or intended. An aggregation of classes taught does not allow for variation in the nature of the teaching or physical circumstances. One might better add apples and oranges

CHAPTER TWO : REVIEW OF LITERATURE

- 42 -

than classes taught in graduate physics and in kindergarten. Efforts to remedy this difficulty by creation of fine divisions of types of activities or performances introduces the second problem. The objective of a service is a particular outcome such as increased knowledge or curing an illness, not an activity such as teaching a class or performing a surgical operation (Burkhead and Miner, 1971).

Operational measures of service outputs are estimated by techniques that parallel the two problems just mentioned. One approach accepts performances or activities as the fundamental measure of units of service output and attempts to control for quality variation. This procedure is always subject to the criticism that the performances tabulated are not appropriate indications of the service-outputs provided. The other approach tries to measure the quantity of service by the effect on the putative (assumed) objective. Here medical service outputs are measured in terms of rates of mortality and morbidity and not operations performed or patients diagnosed. Both views have merit, but economic analysis has stubbornly eschewed measurement of quantities of goods in terms of their consequences because of the considerable advantages in maintenance of the distinction appears to have great usefulness (Burkhead and Miner, 1971).

Although the general problems of service measurement are difficult, the presence of market prices for services in the private sector greatly facilitates quantification. This follows because the market price for private services presumably equates, at the margin, the value of the service to the consumer with its costs to the producer. As a consequence, for any marketed service total expenditures are in effect, a measure of price times quantity, although in practice the quantity dimension cannot be isolated. If, in empirical analysis, elements associated with variation in the cost of production of such services (input prices and internal efficiency) can be specified and their effects taken into account in the analysis it becomes possible to isolate the determinate of increases in quantity and to identify the usual demand-determining variables such as price, income, and family composition in the context

CHAPTER TWO : REVIEW OF LITERATURE

- 43 -

of either family budget or aggregate time series study.

Even for a marketed commodity, however, the derivation of supply relationships presents unusual features. Lacking an overall measure of units of output, the discrete performances that make up the service can be examined and their costs analyzed in relation to the quantities provided over different time periods. If presumed to maximize profits as assiduously as those who produce the usual kinds of goods, supply curves for performances sold on the market can be estimated.

It is possible, then, to derive identifiable demand and supply relationships for marketable services, but it is by no means easy to develop quantifiable measures of units of output for such services. For publicly provided services, where market prices do not exist to permit separation of demand from supply considerations, measures of units of output are essential if such identification is to be achieved. Yet measurement of units of public service outputs has proved extremely elusive. The essence of the problem is that for service the distinction between the product and the effects or consequences of the product and is blurred on the demand side, while the distinction between the product and the production process is likewise blurred on the supply side. For example, the services of the police are demanded to provide protection, and it is difficult to separate the activities performed (patrol, investigation, and others) from the consequences of these services as manifested in the reduction of crime. Yet with regard to commodities, it is steak, for example, for which demand is estimated and not the consequences of consuming the commodity. If consequences such as protection, deterrence, and fire prevention are to be taken as that which is demanded of services, it would appear that the analogous demand for commodities should be described and measured in terms of status, warmth, energy, and similar dimensions of the consequences of consuming goods.

Where government output appears to be measurable and discrete, as with miles

of roads paved, tons of garbage collected, or acres of land reforested, closer examination will reveal that these units frequently are not, in fact, comparable. Some miles of road are more costly to pave than others; commercial garbage collected is a different unit than residential garbage; land may be reforested in many different ways. In any event, the outputs that appear to be capable of ready quantification are often simply indicators of broader program objectives such as "provision of transportation", "sanitation", or "preservation of natural resources", all of which are composite and multipurpose.

2.3.9 General Considerations

In designing and managing performance indicators, there are some important points that should be taken into consideration. The following are some of these considerations (Jackson, 1988):

Performance measurement requires information. Some argue that 'no measure is better than a poor measure'. Even fragmentary information is an improvement on nothing is used prudently. Poor quality performance measures can be categorized as those which are based on:

- * Incomplete but nevertheless reliable data;
- * Complete but unreliable data;
- * Incomplete and unreliable data.

Some areas of performance do not lend themselves to quantification. For many decisions the immeasurable might be more important than the measurable. Quantification often means simplification. This is especially true when considering quality, consumer satisfaction and the effectiveness of many social services.

Performance oriented management requires data. New information systems will be required that not only utilize existing data sets but which will generate additional data for performance measurement. There is a danger, however, that the cost of producing these data will exceed the benefits derived from the improvements in efficiency and performance. Equally, if too much data is provided then management will simply become overloaded, both in supplying the basic information from which the performance indices are compiled and/or reacting to the measures themselves.

Value-for-money auditing is often viewed as a tool for more efficient and effective management. The value for money subject will be covered later in this section.

Management style is important when managing performance. An authoritarian, top-down approach is most likely to be regarded as threatening and will fail to achieve the potential benefits of enhanced performance. A decentralized and participatory approach offers the best chances of gaining acceptance and producing success. A highly centralized management structure in which performance measures are imposed and the center holds individual managers accountable for their performance, and demands that information is supplied, is most likely to generate a distrusting and defensive organizational culture in which it will take longer to bring about change and improve performance.

2.3.10 Barriers to measurement

Measuring performance goes to the heart of the purpose of a public sector organization, concerned as it is with the actual achievement of the real outputs of the organization and of the individuals and teams within it. However, the concept has proved exceptionally difficult to introduce in systematic fashion, for several reasons (Jackson, 1988).

CHAPTER TWO : REVIEW OF LITERATURE

- 46 -

First, public sector organizations generally have multiple, overlapping and perhaps even conflicting objectives. This means that even where it is possible to measure the achievement of individual objectives it may be extraordinarily difficult to carry out the judgment on the trade-off between the objectives.

Second, much of the public sector has an administrative culture which is geared to implementing legislation and acting within professional norms and standards. It is a culture which is very heavily orientated to the measurement of input. Although the professions are keenly interested in the quality and effectiveness of services, much of their public face is also concerned with the volume of inputs, such as the correct staffing levels for residential homes for the elderly or maximum pupil/teacher ratios. Whilst the administrative culture is not necessarily resistant to assessing performance, it often lacks both the language and the tools needed to be fluent in discussing it.

The word performance undoubtedly carries with it a connotation of accountability. If performance is important, it is important to know who is accountable for achieving performance. The complexity of public sector objectives and the prevailing administrative culture have led to weakness in clarifying accountability structures. Yet, it is difficult to develop a process and techniques for measuring performance unless there is clarification of accountability.

Finally, another distinctive feature of administrative bureaucracies, and possibly all large organizations, is a strong capacity to remember failures. There is little doubt that many of the management developments over the past two decades which have attempted to address the question of performance measurement head-on are widely perceived to have failed. It is therefore possible for each successive 'failure' to add more to the body of informed cynicism than to motivate the further search for improved performance measurement systems.

CHAPTER TWO : REVIEW OF LITERATURE

- 47 -

Given these barriers to introducing and sustaining performance measurement, it is necessary to think through why there is a need to measure in the first place.

Measurement is needed for reasons which are both internal and external to the particular organization or team involved. Performance information can be an important part of the internal control process. It allows managers and indeed staff at all levels to see how far objectives and targets are actually being met. Performance information can also be a key element in the setting of priorities for the future. Decisions on priorities can be influenced not only by external needs but also by the internal capacity of the organization to perform in relation to meeting those needs. The third internal element relates to employees motivation, the creation and use of performance information can, of itself, be both a motivator and indeed a de-motivator. Performance information can be used to praise and reward high achievers as well as to support, push or otherwise motivate low achievers.

One reason for the use of measurement which relates both to internal and external use, is that the use of a measurement system is a visible commitment to the analytic approach generally. This is an almost symbolic role for measurement. The design of measurement systems can take on a powerful role in reinforcing, introducing or retaining particular types of managerial culture.

Finally, it should not be concluded that performance measurement is either impossible or undesirable. What it does suggest is that those responsible for designing and implementing new performance measurement systems must be realistic about the difficulties of introducing such systems, must be prepared to be self-critical about the development process and appreciative of the need to take on the prevailing culture if they are to stand a chance of making performance measurement systems work.

2.4 PROGRAM BUDGETING AND AUDIT

2.4.1 Introduction

Audit is a key element in the processes involved in ensuring accountability for public expenditure. As well as ensuring financial regularity and legal compliance, its role includes improving the economy, efficiency and in some cases the effectiveness of public administration (PBS, 1986).

Audit in this context, is an ex-post activity that is designed to cover dual roles: fiscal and value for money (VFM) auditing. The former role, fiscal auditing is the more traditional responsibility. It involves auditors in ensuring that funds have been expended in accordance with the terms by which such monies were appropriated, and that accounts have been properly prepared. The latter role have received growing attention in recent years with a trend towards extending the scope of public sector auditing to include an assessment as to whether departments and agencies manage their operations efficiently and whether their programs are effective in terms of the objectives by which they were initiated.

In essence efficiency audits involve identification of the objectives of a program, its costs and an assessment of the results achieved. The move to efficiency auditing, however, has frequently encountered difficulties where programs were ill-defined, their goals and objectives not clearly specified and performance indicators inadequate. These shortcomings have significantly increased the volume of work and extended the time required to complete audits as well as limiting the depth of analysis of issues and reducing the number of audits which could be effected.

By providing a purpose-oriented and systematically developed framework and information base that is common to all participants in the public expenditure processes, the introduction of PB can potentially alleviate these difficulties and

be of major benefit to the work of audit. It can provide an improved basis for planning and targeting of audits (PBS, 1986).

In terms of the conduct of audits, the areas of resource attribution and performance indicators are likely to become an increasingly more important focus of audit under PB.

Resource Attribution

While program budgeting does not involve a move to program appropriations, it will require the attribution of resources, including salaries and administrative expenses, to program elements. As information is the basis for ministries and departments estimates and activities and an important input to many performance indicators, audit will have an interest in the reasonableness, objectivity and verifiability of the information produced and in the development and operations of departments' Management Information Systems that support this information.

2.4.2 Performance Indicators and Audit

The development of meaningful performance indicators will assist participants in the public expenditure processes e.g. department and ministries as well as audit in the conduct of economy and efficiency reviews. In the execution of audits, it is likely that attention will be focused on four areas:

- a). Whether appropriate systems and processes are in place to adequately monitor and assess performance.
- b). The quality of indicators. For example questions regarding:

CHAPTER TWO : REVIEW OF LITERATURE

- 50 -

- Accuracy of the data used to support indicators.
 - Timeliness of the indicators - do managers receive data on the indicators in time to take appropriate action?
 - Appropriateness of the indicators as measures of performance - are there indicators which would provide a more reliable guide to performance?
 - Validity of the indicators - is there sufficient correspondence between the indicators and true measures of performance? Could the indicators lead to dysfunctional behavior? If so, are managers sufficiently aware of this and are allowances made for this (e.g. use of appropriate pairs of indicators)?
- c). The extent to which managers actually use the indicators. For example whether the indicators are used to:
- Develop work plan including identification of targets and milestones;
 - Develop and justify bids for resources to corporate management;
 - Direct work during the year - audit may investigate whether it follows-through on adverse indicators;
 - Assist review of the year's performance in relation to operational objectives and targets and as an input to planning for future years.

The need for this area to be audited is highlighted by the view that performance indicators can only be relied upon if the organization places some degree of importance on them and that they are indeed appropriately used by management and acted upon accordingly.

CHAPTER TWO : REVIEW OF LITERATURE

- 51 -

- d). What the indicators suggest about efficiency and economy of programs and about the extent to which stated objectives are being achieved.

2.5 THE HISTORICAL BACKGROUND

The historical background will be beneficial in the development of the proposed budget reform for MOE in the State of Bahrain.

2.5.1. U.S. experience

PB has origins in both United States industry and the federal government. Its approaches were initially utilized by the industry in the 1920s with analyses by Bell Laboratories and a system introduced by DuPont Company into General Motors. In the early 1940s the federal government started a wartime materials control system that utilized many of the principles of PB in its concept (Sweeny and Rachlin, 1981).

At the end of World War two the Navy Department started to present its budget along both object and program lines. This development in the federal government was encouraged by the report of the First Hoover Commission in 1949. The commission recommended that the whole budgetary concept of the government should be refashioned. The Commission's report also contributed to the popularisation of the term "performance budget".

In the 1950s a number of American cities also introduced budgetary innovations under the heading of program and performance. A few states, including Maryland, New York, Michigan, Connecticut, Illinois, California, and Oregon likewise utilized performance concepts in one or more departments and agencies (Burkhead, 1956). During the 1950s much of the animation that had surrounded PB gradually diminished. The U.S. Bureau of the Budget during these years continued to encourage agencies and departments to improve their activity schedules and to develop cost-type budgets based on work measurement. This encouragement

CHAPTER TWO : REVIEW OF LITERATURE

- 53 -

contributed to a continuous improvement in the quality of budget justifications and budget presentation. But it did not appear to have dramatic consequences.

The setting changed, however, in the spring of 1961 when Robert S. McNamara became Secretary of the Department of Defense (DOD). Charles J. Hitch was appointed Comptroller of the Department, and was charged with responsibility for refashioning the budget structure of DOD in program terms and with introducing systematic analysis of alternatives as a basis for budget formulation.

The successful experience of DOD with this approach to budgeting led to its adoption on a government-wide basis in August, 1965; first as a memorandum from the President to the heads of all federal departments and agencies, and then, in October of the same year, as a directive from the Bureau of the Budget. The first budget to reflect the impact of PB was submitted to the Congress in January, 1967. The system has been gradually extended and refined since that time, to the point where almost all major federal departments and agencies have undertaken program classifications and have developed an improved analysis of program outcomes (Burkhed and miner).

The program budget system of the DOD was intended to concentrate decision authority in the Office of the Secretary of Defense and program packages are defined here. The budgetary authority of the bureaus within the service departments and of the departments themselves has been greatly diminished. As a system of financial management, PB in the DOD; has brought three major advances (Burkhead and Miner, 1971) as follows:

First; better costing. The authorization of a research and development proposal for a weapons system is accompanied by at least some rough calculations of the prospective future installation and operating costs of that system. This procedure is particularly important for programs that extend over a number of fiscal years,

and is necessary control on research and development projects conducted by DOD that may commit heavy additional outlays in the future.

Second; the utilization of cost data for assessing choices in achieving specified levels of deterrence capability - the systematic treatment of effectiveness. In this context, operations research has become an integral part of military planning and programming.

Third; the third major contribution lies in the five-year projections. These have brought an articulation of planning and budgeting that has not until today been achieved in the defense establishment.

The program budget system of the DOD can't reveal whether the nation is better defended in one year than in another. Such a determination would require an assessment of military effectiveness against all potential adversaries and their probable response patterns. Neither can the program budget system reveal whether it is better to spend more on national defense and less on health and education. It can reveal military responsibility in relation to predetermined objectives and the estimated capability to be expected from additional military expenditure (Burkhead and Miner, 1971).

2.5.2 U.K. experience

The beginnings of PB in Europe appear to have been somewhat smoother than U.S. Although there have been some difficulties, generally the approach has been slower and more cautious. More attention has been paid to understanding the concept and to preparing for potential difficulties (Sweeny and Rachlin, 1981).

PB in the U.K. has generally followed a very different path from that of U.S.; this

CHAPTER TWO : REVIEW OF LITERATURE

- 55 -

was due to the differences of the political and constitutional environment of the two countries (J. Glynn, 1987). The history of the efforts in U.K. to adopt the PB system of budgetary control goes back to the 1960s. Two of the more widely reported exercises of PB implementation concerned the Ministry of Defense (1964) and Ministry of Education and Science (1970).

The sheer growth of central and local government spending on education in the 1960s caused the Department of Education and Science to investigate the possible adoption of program budgeting. The program structure for education was published in Output budgeting for the Department of Education and Science. A two-dimensional structure was proposed that analyses according to: (a) the groups for whom education is provided; and (b) different factors affecting changes in resource allocation. Once again the results of this exercise remained 'in-house'.

The review of government functions and organizations which has been carried out in U.K. is intended to lay the necessary foundations. The aims of that review have been:

- a. To improve the quality of policy formulation and decision-taking in government by presenting ministers, collectively in Cabinet and individually within their departments, with well defined options, casted where possible, and relating the choice between options to the contribution they can make to meeting national needs. This is not confined to new policies and new decisions, but implies also the continuing examination, on a systematic and critical basis of existing activities of government.
- b. To improve the framework within which public policy is formulated by matching the field of responsibility of government departments to coherent fields of policy and administration.

CHAPTER TWO : REVIEW OF LITERATURE

- 56 -

- c. To ensure that the government matching responds and adapts itself to new policies and programs as they emerge, within the broad framework of the main departmental fields of responsibility.

The need to undertake expenditure forecasts was recognized by the Plowden Committee Report (1961) on the Control of Public Expenditure. The Plowden Committee took the view that the efficiency and management of public services, as well as the evaluation of ongoing and new policies, could be greatly improved. There were a large number of decision makers, whose concerns were not always properly captured by the budget coverage and the budgetary process. The government supported the Plowden Committee's recommendations and the new system came to be known as the Public Expenditure Survey Committee (PESC). PESC is chaired by a deputy secretary of the Treasury, and its 3-year forecasts are published twice a year, under schedule 5 of the 1975 Industry Act. PESC does not embody detailed analysis of policy operations; its purpose is primarily for macroeconomic planning. For each year of the forecast the previous year's level of service is taken as the base; that is then modified by additions representing new policies and subtractions reflecting the closure of activities that have already been agreed to during the year. Proposals over and above the levels so indicated constitute new policy proposals. This process implies that forecasts became effectively the annual budgets. Since 1982/83 cash planning has replaced the previous system of constant prices. The change to cash planning arose, in part, because estimated in constant prices implied that cash had to be provided, regardless of the rise in prices, in order to maintain the agreed levels of services in real terms. In a time of rising inflation this had the potential of depriving the government of control over cash expenditure.

2.5.3.Australla Experience

In this section we will describe some of the features and difficulties associated with administrating program-based financial management in the Education Department of Victoria in Australia (Gowan L. - 1985).

a) Historical Context

After 27 years in Victorian opposition, the Labor Party commanded a major mandate to effect significant financial reform in the State public sector when it came to power in April, 1982. One of its most notable objectives was to improve budgeting techniques and management methods, and this led to the priority development of PB.

As a consequence, all Victorian Government Departments commenced Program-based appropriation management on 1 July, 1984, under Department of Management and Budget overview.

The Education Department implemented a major organisational restructuring in 1981/82 and 1982/83 ahead of and separate from the impact of PB. This reorganisation was highlighted by an extensive decentralisation of power and authority to the 12 Regional Offices and Schools; the creation of three Directorates for Schools, Educational Programs, and Personnel and Resources replacing what were longstanding organisational streams for Primary, Secondary and Technical Education; and the enhancement of the roles and resources of Regional Offices.

Prior to PB, the Department utilised a conventional cost centre accounting approach for financial management, with budgetary information being classified firstly by Organisational Units (including Regional Offices) and secondly on a line item cost basis. The service orientation of the financial structure, which is characterised

CHAPTER TWO : REVIEW OF LITERATURE

- 58 -

under PB in a separately identifiable hierarchy of Programs, Sub-Programs and Components, was previously incidental, unplanned and secondary to cost centre accounting.

b) Program Structure

The Department of Management and Budget and Consulting Accounting agencies were highly influential in determining the Education Program Budget structure, in collaboration with Departmental Officials. The following were the compromise choices of the Programs (Gowan L. - 1985).

- 1 - Education Ministry
- 2 - Corporate Services
- 3 - School Education
- 4 - Student Services
- 5 - School Development & Resource Services
- 6 - Equal Educational Opportunities
- 7 - Non-Government Schools

The major organisational features of this structure were:

- 1) The School Education Program budget represented more than 89% of the total Departments Budget, and 22.79% of the total State Budget.

CHAPTER TWO : REVIEW OF LITERATURE

- 59 -

Serious consideration was given to the creation of separate Programs for Primary, Post-Primary and Special Education as an option to this single, mammoth School Education Program.

- 2) Despite their key role in enhancing the devolution and decentralisation which is critical to the Department's reorganisation being successful, the identity of Regional functions became submerged within service oriented programs.

c) Interfaces with external agencies

During the Implementation of PB, inter-Agency difficulty arose in the reporting of Education Department works projects which were constructed and accounted for by the Public Works Department. Because of external computer system difficulties the cost of School capital projects was captured on an established line item/project cost basis only. As accurate accounting information could not be attained for Programs, Sub-programs and Components, the costs and budgets in this sector were notionally determined. Currently, measures are being taken to enhance the Education Department's ability to better report, manage and integrate its projects in the PB context.

d) Performance measures

While major efforts were directed towards the development of performance indicators at all levels, it was decided that this product was insufficiently complete to be published within the 1984/85 Budget Papers. The development of this aspect was difficult because the Department programs were social in nature and their often intangible outcomes were difficult to quantify. In addition, individual managers

sometimes viewed basic objectives differently, and this led to delays in the provision of reasonably consistent sets of measures throughout the various Programs, Sub-programs and Components.

e) School-based PB

The Government's policies to devolve decision-making and to implement PB offer individual Schools ability to develop a character in accordance with their particular needs, and to do so in an efficient and cost-effective manner.

Following an amendment to the School Education Act, Victorian School Councils now possess power to determine curriculum objectives, to undertake more decisions concerning the utilisation of local resources, and to ascertain broad operational policies within a framework of system goals and objectives. In addition, Head Office administration is planning the introduction of a system of interim forward budget advices for every Government School. These developments establish a strong foundation for Schools to undertake improved forward-planning.

2.5.4. Sri Lanka Experience

Sri Lanka's budgetary innovations commenced in earnest in 1969. Three ministries - Education; Health; and Lands, Irrigation, and Power — presented their budgets in program/project form in a document supplementary to the main budget. This pilot study continued for the next two years, during which the Ministry of Lands, Irrigation and Power was reorganized and replaced in the study by the Ministry of Finance. In 1972 the system was extended horizontally to 16 other ministries. These ministries reclassified their 1973 budgets in program/project form, but did

CHAPTER TWO : REVIEW OF LITERATURE

- 61 -

not provide performance data. At the same time the three pilot study ministries attempted to supply such data. In the following year the remaining Sri Lankan ministries adopted the system, and thus for the financial year 1974 the entire government budget was presented in the new form. By 1975 a fair amount of performance data was also being presented by all 23 ministries. (Dean N.-1988).

The system adopted was very close to that outlined in the United Nations manual of 1965. In Sri Lanka the major classifications of the program budget are (Dean N.-1988).

- a) Program. A major departmental function that comprises activities conducted toward achieving one or more of the objectives of the department, and which is used as the basis for appropriation.
- b) Project. A subdivision of a program; that is, a group of homogeneous activities, operations, or tasks carried out to attain program objectives.

The term "activity" is also used to describe a constituent part of a project, but not as a subdivision for budgetary purposes. Performance measurement is attempted at the project level to indicate the workload of a homogeneous set of activities, or the quantum of effort expended, or the results expected.

The main features of the program budget are:

1. Classification in terms of programs, projects, activities and items of expenditure.
2. Performance measurement data that include workload/volume/results to be accomplished and their unit cost.

CHAPTER TWO : REVIEW OF LITERATURE

- 62 -

3. Manpower resources to be utilized by each project during the financial year.

Knowledgeable Sri Lankans working in public-sector financial management feel the program budget experiment has failed. The most obvious evidence of failure is that most of the procedures established during the reform period have fallen into disuse. Since nobody is interested in considering departments' program budgets, little importance is attached to their contents. The 1984 estimates contain several tables of project performance measurement that are blank. Other tables contain only the roughest of estimates. In many cases the columns representing units of backlog at the beginning of the year and total units on hand during the year are empty. Discontinuities and abrupt changes in the figures and in cost per unit of work are not explained. (Dean N. - 1988).

Against this background, the achievements of program budgeting must appear modest. A fair way to assess them is to compare the budget system as it was before the reforms with today's systems. The significant improvements are:

1. A budget document that identifies programs and projects and shows their separate costs; that explains the nature of projects and their constituent activities and shows the functions and objectives of departments, programs, and projects so that the reasons for funding requests are to some extent clarified.
2. A budget in which the program is the unit of appropriation and the funding of separate projects is clearly identified. This contrasts with Sri Lanka's previous system of bulk provisions, which did not ensure that individual projects would be adequately funded. To put this another way, the new system circumscribes ministers' powers to make choices between projects. This is seen as an advantage by project managers.

CHAPTER TWO : REVIEW OF LITERATURE

- 63 -

3. A system of accounting for expenditure based on 12 standard object classes, and up to nine object details within each class. This is in contrast to the diversity of accounting classification that existed previously.

In addition, budget classification and program analysis have helped identify overlaps between organizations, redundant activities, and organizations whose resources do not match their objectives. In such cases appropriate remedial action could be taken. (Dean N.- 1988)

The reasons for the decline in the implementation of PB are partly specific to Sri Lanka and partly specific to program budgeting itself. (Dean N. - 1988 - p.p. 65). One factor was the short period during which the budget reform took place: eight years from start to finish, and only five years in which a substantial number of ministries were involved. The short experimentation period in Sri Lanka allowed no time for principles to become embedded in administrative thinking, or for evaluation during the period of implementation.

Another factor was the failure of program budgeting to find powerful friends. The role played by the executive was shadowy. No formal announcement by the executive of the new system was made. During implementation some involvement was apparent in the shape of the approval of the Minister of Finance, but no great priority was given to the system. The resources allocated to it and the institutional arrangements for it were modest, and the authority of the program budget unit developed informally rather than formally. It was easy for the executive to abandon a system that it had never really acknowledged. Program budgeting had very few friends in Sri Lanka. It was popularized and developed by financial administrators in the Treasury but received little or no support from the legislature or the executive. It failed to establish firm roots in departments, as it did not engage the full interest and support of those in charge. Indeed much of the support for

CHAPTER TWO : REVIEW OF LITERATURE

- 64 -

the system within departments came from the newly appointed members of budget cells and from senior accounting staff. This proved to be a thin line of defense once central support for the system was withdrawn.

Turning to the legislature, there was little awareness among legislators of the need for program budgeting. A few members of Parliament demonstrated an understanding of the system and spoke in its favor, but the legislature did not recommend its adoption. Moreover, once installed, legislative use of the program budget data was minimal. Even the Public Accounts Committee, which might be considered an important potential user of the data, seems to have demonstrated no interest in the system or its outputs. The best that can be said is that the legislature never opposed program budgeting nor expressed criticism of it.

The auditor-general is another important potential user of the data, but a review of his reports reveals no evidence of such use. The reports concentrate almost exclusively on the regularity aspects of audits. Clearly program budgeting is more relevant in relation to efficiency and value of money auditing. The current auditor-general accepts the fact that development of this type of auditing has been impeded by lack of progress in program budgeting, and therefore favors renewed efforts to install a simple and workable program budget system. (Dean N. 1988 - p.p. 66).

Finally, the program budget reform occurred without important parallel financial and administrative reforms that might have sustained it. Surveying the Sri Lankan public sector over the last 15 years it is difficult to identify any major financial reform other than program budgeting and its attendant systems. A link with performance auditing could not be established because government auditing was almost exclusively of a regulatory nature. Accounting remained predominantly manual, vote-oriented, and cash-based, deriving its inspiration from established methods rather than from

CHAPTER TWO : REVIEW OF LITERATURE

- 65 -

modern management ideas. Moreover, the link between planning and budgeting was not established. In summary, program budgeting remained a somewhat isolated phenomenon.

2.6. EVALUATION OF PB

2.6.1 Advantages

Indeed, there are a lot of advantages that could be realized by the government if they implement the PB system. Some of these advantages might already have been identified in the previous paragraphs of this section. However, the following are the main advantages:

- a) The classification of government activities by broad purposes may permit a better view of program interrelations and facilitate the identification of the need for coordinating mechanisms. An overview of objectives and goals will help to avoid the rigidities of existing organizational structures. Moreover, an emphasis on the taxonomic approach to program budgeting permits cross classifications that reveal the multiple objectives served by many government programs, and the relationships of one program to another.
- b) The analytical objective is perhaps the most important, and the most difficult basic task - that of measurement and comparison of inputs and outputs of government activity and the exploration of trade-offs which require ingenuity and skill. Most often, what is required is the measurement, at the margin, the incremental costs and incremental outcomes derived from changes in existing programs. Less frequently, it will be necessary to measure the costs and outputs of wholly new programs (Sweeny and Rachlin, 1981)
- c) PB can organize and improve data for decision making and management.
- d) Program budgeting can make important contributions to an improvement

in the quality of budgetary decisions in governments that introduce it and seek to develop it over a period of years.

- e) Program budgeting had led many federal agencies in U.S. to review their missions and functions. In addition, an increased use of cost benefit and cost effectiveness analysis, and a greater concern and involvement with goals and objectives, generally remained. Thus many of the aspects of PB continued, as well as its spirit, although the concepts were presented differently (Sweeny and Rachlin, 1981).
- f) Government units can be encouraged to plan, budget and manage with a concern for objectives and for achieving and demonstrating efficiency and effectiveness in program implementation. This will involve development and re-orientation of departments' own budget estimates processes onto a program basis. Management information systems will also need to undergo extensive development to provide and integrate financial information and information on program implementation and performance. These developments will be supported by enhancements to the Finance Ledger System (PBS, 1985).

2.6.2 Disadvantages

Besides the advantages of PB mentioned in the previous paragraphs, however, there are some costs or disadvantages accompanied with the implementation of PB in the government. The following are some of these disadvantages:

- a) The examination and ranking of alternatives is intended to distinguish program budgeting, as it is currently practiced, from earlier efforts at performance measurement. But the relationship of analysis to policy may

CHAPTER TWO : REVIEW OF LITERATURE

- 68 -

be a tenuous one. Wildavsky has put the point most strongly:

" All the obstacles previously mentioned... may be summed up in a single statement: no one knows how to do program budgeting. Another way of putting it would be to say that many know what program budgeting should be like in general, but no one knows what it should be in any particular case. Program budgeting cannot be stated in operational terms ... The reason for the difficulty is that telling an agency to adopt program budgeting means telling it to find better policies and there is no formula for doing that ".

- b) For the immediate future, program budgeting will be much less useful for comparisons among programs, particularly where they have diverse end products. Program budgeting does not facilitate a calculation of marginal social costs and marginal social benefits for such varied programs as explorations in space, foreign aid, or medical care for the aged. Whether program budgeting will improve the quality of legislative review decisions continues to be very much in doubt. Experience in Congress and in those state and local legislatures where program format has been employed does not suggest that such improvement will be the case (Burkhead and Miner, 1971).
- c) In the experiences with performance budgeting in the early 1950s, it was discovered that there are a number of government activities where an end-product approach is almost wholly elusive. Recent developments in the theory and practice of program budgeting have not resolved - cannot resolve - this basic difficulty. Service output in the market sector is difficult to measure and to compare over time because of changes in its quality. Measurement of the quality of government service output faces the same

difficulty. There is the further difficulty that, in the absence of prices, it becomes necessary to estimate the welfare consequences of public goods and services by improved education improved health or an improved environment. It is the identification of the specific contribution of government services to these consequences that is virtually impossible. A related difficulty is that many government programs serve multiple purposes.

d) Difficulty is encountered in relating activities to outputs in the matter of general staff services which cannot be specifically allocated. Revenue administration, research and development, and the work of personnel offices, accounting offices, and legal staffs fall in this category. As a result of the foregoing considerations a program budget does not measure output as a true end product; it will typically measure activities at some point short of the end product.

2.6.3 WHY PB FAILED ?

"Wildavsky" stated that PB has failed everywhere it is implemented. The following are the main reasons why PB failed (Wildvasky A., 1975 and 1986) :

a) Resistance for change

The introduction of new procedures that result in new policies and objectives is not easy. There is always a resistance for change. The deeper change goes into the bowels of the organisation, the more difficult it is to achieve, and the more it is limited to the central management, the greater the possibility for carrying it out.

b) The complexity of program structures

Technical problems are encountered in constructing program structures; one of the main reasons for adopting PB, the cross-over of activities, for example, the activities associated with a particular program, such as "care of the elderly people" will fall to a number of governmental departments that includes Ministry of Labour and Social Affairs, Ministry of Health, and Ministry of Housing. Another example would be the activity of providing school meals to the students, this activity contributes to the programs associated with health, education and social deprivation. Thus, there is a practical problem in allocating activities to programs.

c) Lack of trained staff

Experienced and knowledgeable personnel were always a barrier to the change.

d) Small number of planners

Availability of few planners who were less experienced in planning.

e) Weak knowledge about PB

There was a situation where "no one knew how to do PB". In other words, many knew what PB should be like in general, but no one knew what it should be in particular (Wildavsky, 1975).

f) Policy trade-offs

At the highest level of generality, PB was unable to help making choices between vast national goals such as education, health, and defense, nor it was useful in making trade-offs between more closely related areas of policy in such fields as health, education, and welfare.

g) Difficulty of measuring performance

It was difficult to measure the benefit of some programs such as education and health because they are diverse and intangible. They affect different age groups over different periods of time. No amount of analysis is going to tell us whether the nation benefits more from sending a child to primary school, providing medical care to an old man, or enabling a disabled woman to resume her normal activities. The "grand decisions" on these and other matters are questions of value judgments and politics.

CHAPTER

THREE

Chapter Three

THE GOVERNMENT BUDGETARY PROCESS

3.1. THE BUDGET LAW

Law number one for 1975 defines the rules for preparation and control of implementation of the state Budget.. In the following paragraphs we will discuss the main articles covered in the above mentioned Law. (a detail of the law articles is shown in Appendix 1).

3.1.1 Estimates of revenue and expenditure

Ministries and Government Directorates are requested to prepare the initial revenue estimates in accordance with instructions to be issued by the Minister of Finance and National Economy. Ministry of Finance and National Economy (from now and here after it will be refereed to as MOFNE) is given the authority to estimate these revenues on the basis of the budget for the current year taking into consideration the factors or circumstances that may have effects on the said estimate in case when the ministries fail to advice MOFNE on their budget estimates.

For expenditure estimates, the Ministries and Government Directorates are requested to accompany their estimates by the necessary documents, statistics and explanatory notes verifying each of the required allocations in the budget.

If a Ministry or Government Directorate fails to submit the estimates of expenditure within the period of time set by MOFNE, the latter shall, after notifying the Ministry concerned, undertake the estimation of expenditures on the basis of this Ministry's

budget for the current year taking into consideration the amendments introduced during the year and other circumstances to the said Ministry or Directorate.

3.1.2. Approval of the State Budget

The MOFNE Minister prepares the draft budget together with a statement in respect of the financial and economic position of the State and arrangements made for the implementation of current budget allocations and the effect that this might have on the draft of the new budget. The MOFNE Minister shall then submit the above mentioned draft budget and the statement to the Council of Ministers for approval.

The State budget is issued by Law. However, if the Law concerning the budget was not issued before the beginning of the financial year, the previous budget will continue to be in force until the Law is issued and collection of revenues and disposal of expenditure are effected in accordance with Laws applicable at the end of the said year.

3.1.3. Implementation of the State Budget

The MOFNE Minister is given the responsibility and authority to issue instructions concerning the implementation of the budget to ensure that this implementation conforms with the provisions of Laws and regulations in operation. In addition, the financial transactions between the various Government Departments shall be settled in accordance with the instructions issued by the MOFNE Minister.

The existence of an allocation in the budget should not serve as a waiver for any of the provisions of the Laws, regulations and orders. Further, any expenditure

not included in the budget or in excess of the estimates appearing therein must be effected by Law. This provision also applies to the transfer from one category of the budget to another. The Ministries and Government Departments are not allowed to request additional allocations unless there are satisfiable causes for such request.

Depending on the nature of expenditure (e.g. projects expenditure), certain allocations may be appropriated, by virtue of a law, for more than one financial year. The allocations in respect of the above expenditures shall be appropriated in the successive annual State budgets. In some cases, the expenditure mentioned above may be allowed a separate extraordinary budget which will be effective for more than one financial year.

Sums which have been actually collected during any financial year shall be considered as revenues or expenditure of the said year (i.e. cash basis of accounting). In addition, any allocation which has not been spent, or which has not been decided to be spent during the financial year for which it has been appropriated shall become null and void.

3.1.4. Accounts and Accounting Control

The duty of the Heads of Finance Departments in each Ministry or Directorate is to audit the accounts and examine the documents and papers of revenue, expenditure and other accounts to ensure their authenticity and compliance with laws, regulations, and financial instructions. They shall also examine the monthly and quarterly statement of accounts as well as the annual final accounts. In addition, they shall ensure that due revenues are collected on time and added to the government revenue. Finally, they are requested to investigate causes for delay

of collections and the examination and approval of payment vouchers before any payment is made.

3.1.5. The Final Account

Each Ministry or Directorate prepares its final account for the financial year which ended to be submitted to the MOFNE on the dates fixed for this purpose. These final accounts are signed by the Head of the Finance Department.

The final account on the financial position of the State is prepared by the MOFNE Minister. In addition he also prepares a report on the said account in a manner which reflects the truth of the financial position in the financial year ended. The final account and the report are submitted to the Council of Ministers. Any surplus arising from the final account of the financial year is transferred to the reserve fund and any deficit is charged against it, but this may only be effected by Law.

3.2. GOVERNMENT BUDGET PREPARATION PROCESS

3.2.1. Budget Preparation

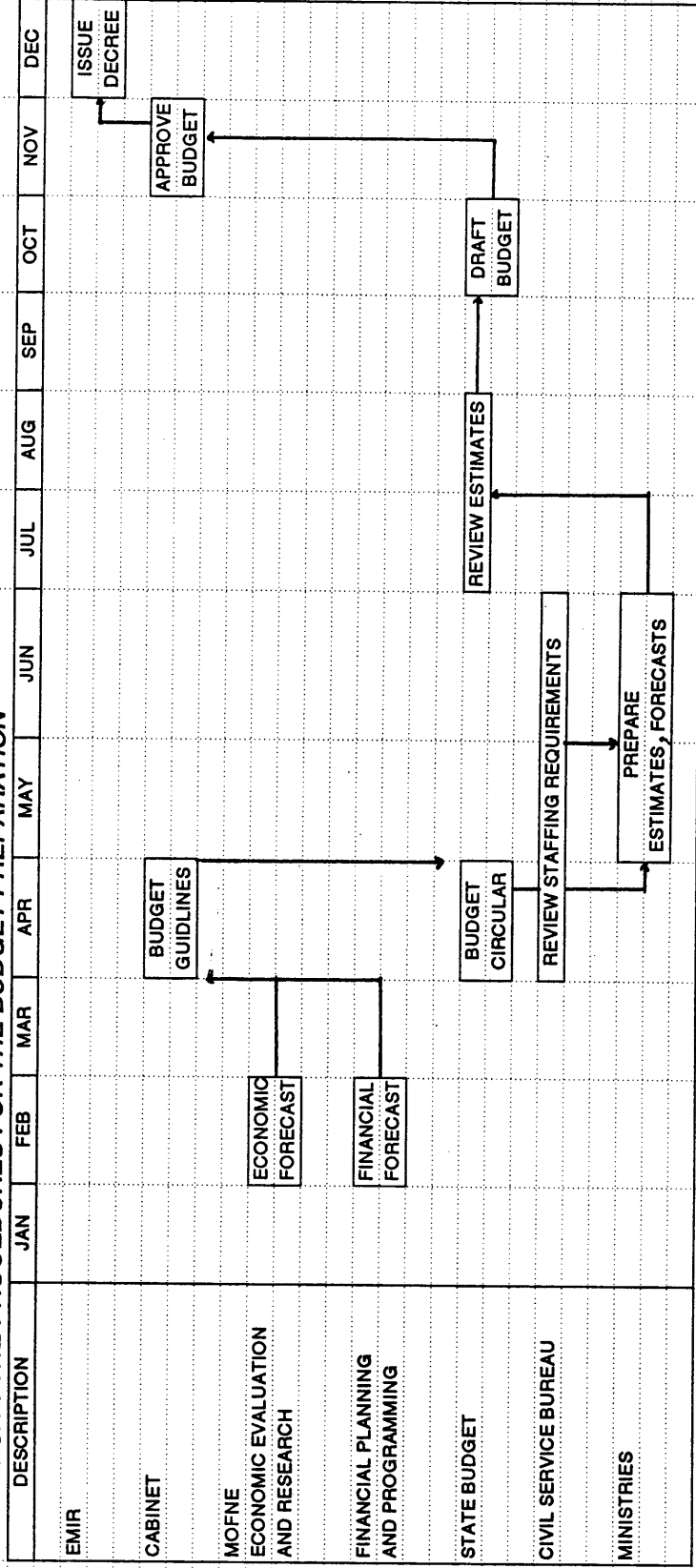
The principal features of the government budget preparation process in Bahrain can be found in Exhibit 3.1 (which is taken from an IMF 1986 report; budgetary and accounting systems in GCC member States). As shown in Exhibit 3.1 the first step in budget preparation process is the incorporation of the economic and financial forecasts that are prepared at the beginning of the financial year by the MOFNE Economic Evaluation and Research Directorate (EVR) and the Financial Planning and Programming Directorate (FPP) respectively.

The economic forecasts are derived from the overall development plan for the State of Bahrain. Indeed, the development planning in Bahrain is a decentralised function which depends upon the major capital spending projects initiated by certain key Ministries and Directorates. Those Ministries are headed by the Ministry of Public Works, Power and Water (PWA). Other major Ministries include Ministry of Housing, Ministry of Defence, Ministry of Education, and the Ministry of Health.

The financial forecasting is conducted by FPP Directorate at MOFNE. FPP financial planning section does three types of forecasts for central government revenues and recurrent expenditure. Those forecasts are short-term (monthly), medium-term (two year), and long-term (more than two years). In addition to the FPP's forecasts, other MOFNE directorates calculate their own forecasts, so that different revenue and expenditure forecasts based on different assumptions are taken into consideration in the budget preparation process.

A budget circular is prepared by the State Budget Directorate (SBD) based on budget guidelines received from the cabinet and sent to the Ministries and Government Directorates. SBD takes into account the economic and financial forecasts

EXHIBIT 3.1 : THE PROCEDURES FOR THE BUDGET PREPARATION



CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 77 -

mentioned above in preparing the circular. The Budget preparation at the level of the Ministries and Government Directorates usually begins fairly early in the year preceding the two-year budget (it is the policy of the State to prepare the budget for two-years). Budget classified into three parts; manpower (chapter 1), other recurrent expenditure (chapters 2 to 7) and projects/capital expenditure (chapter 8).

Within each Ministry, the various Directorates and Sections are requested to estimate their budget needs according to certain guidelines provided to them by the Finance Departments of the concerned Ministries. The Ministry level proposal for manpower needs is reviewed by the Civil Service Bureau (CSB) in a negotiation process between the two during which the Ministry's organisational chart, number of positions, grades, allowances, etc. are questioned (especially if there are changes made since the previous year). With CSB approval regarding the number of personnel, their position, grades, etc., the concerned Ministry will work out its manpower expenditure and add it with other recurrent and non-recurrent expenditure. This will represent the overall budget request for the two-years period that will be submitted to MOFNE. Then the budget negotiations commence with the concerned people in MOFNE.

After all the discussions are over, the final budget figures are put together by the SBD and a draft budget for the State is prepared. The draft budget is then sent to the Council of Ministers' for their approval which is followed by the issue of an Emiri Decree.

3.2.2. State Budget Standard Classification

To standardize the financial and accounting procedures and documents in the government, MOFNE issued a Standard Finance Manual (SFM) and distributed it to

all Ministries and Government Departments for implementation. Section 4 of this Manual deals with the Budgeting Procedures. The budget is allocated according to the type of expenditure (i.e chapter, section, and item), which is further divided according to the cost centres (ministry, programme, and sub-programme). The total budget is divided into eight chapters. A brief description of the nature of expenses included in each chapter is presented in the following paragraphs.

3.2.3. Chapter One: Manpower Expenditure

This type of expenditure includes the salaries and wages for all the government employees (Bahrainis and Non-Bahrainis), their training and other costs and allowances; such as recruitment, termination and leave costs and allowances, car and transportation allowances, overtime charges.

3.2.4. Chapter Two: Services Expenditure

This includes the expenditure on the communications (telephone installation charges, intercom equipment, telex installation and usage charges, etc.); utility costs (electricity supply and usage charges and municipality fees); rental charges; insurance, transportation and cleaning charges; advertisement printing and subscriptions; and other miscellaneous charges.

3.2.5. Chapter Three: Consumables

This chapter includes expenditure on the purchase of gas, fuel, oil and lubricants. It also includes the cost of supplies and materials like the purchase of garments,

food, chemicals, printing and stationary materials, drugs and medical materials, and other miscellaneous consumable items.

3.2.6. Chapter Four: Fixed Assets

This chapter includes expenditure on the purchase of fixed assets such as motor vehicles, trucks, heavy machinery and tools, furniture and fixtures, computer equipments, and other miscellaneous assets. MOFNE defines fixed assets as all tangible assets owned by the Ministries and Government establishments for use, and their useful life extend to more than are financial year.

3.2.7. Chapter Five: Maintenance

Expenditure from this chapter includes the maintenance costs of all the government properties such as the buildings, motor vehicles and heavy machinery, computer equipments, furniture, and other miscellaneous equipments and machineries.

3.2.8. Chapter Six: Transfers

Those are the amounts transferred by MOFNE to the associations and committees as supports from the government. It also includes external transfers such as the State of Bahrain contribution fees to the Gulf Co-operation Council.

3.2.9. Chapter Seven: Grants, Subsidies and Repayment of Loans Interest

The expenditure from this chapter includes the payment of interests due on foreign

and domestic loans, food subsidies, subsidies on petroleum products, social grants, and other assistance to organisations and enterprises in Bahrain.

3.2.10. Chapter Eight: Projects Expenditure

This chapter includes the pre-construction costs (such as the land purchase and acquisition, land reclamation, land compensation, feasibility study, etc.); construction contract costs; ancillary construction costs, capital maintenance, and other capital expenditures. The building and maintenance costs of the Ministry of Education Schools are also charged under this chapter.

3.3. DESCRIPTION OF MINISTRY OF EDUCATION

3.3.1. Organisational Structure of MOE

An Organisation Chart for MOE is shown in Appendix 2. This Chart is of a functional type and includes in addition to His Excellency the Minister of Education and the Under secretary, 4 Assistant Under-secretaries and 17 Directorates and Centres that report to the Under-secretaries. In the following paragraphs we will describe the general goals and objectives of the MOE in addition to the main duties and responsibilities of the key Directorates in the Ministry.

3.3.2. Goals and Objectives of MOE

The following are the main goals and objectives of MOE as extracted from the Ministry's 1988-89 annual report prepared by the Educational Information Department Documenting Centre (pp.11) :

- a. To provide the opportunity and help for every individual to develop his/her capabilities and skills to achieve a better quality of human life, in addition to preparing him/her for a co-operative life in the work and working environment.
- b. The development of the individual's capabilities for critical thinking and to make the correct decisions in addition to proper implementation of these decisions.
- c. To ensure the rule that Islam has played to complement the individual's personality and its rule to encourage the unity and co-operation in the community; and its validity in all times and places in addition to its capability

to cope with the current environmental requirements.

- d. To enable the individual to support the scientific and technological improvements and gain from their consequences/results.
- e. To enable the individual to better utilize his/her free-time, through involvement in the social, cultural, scientific and sport functions provided by the Ministry's various Directorates and Centres.
- f. To enable the Society to achieve the economical and social improvements, that is by providing to it what it needs of local skillful manpower that is able to work, produce and innovate.
- g. To encourage the development of an educated and productive society, which is complete in its all components. This can be done through providing the self-direction and self-education opportunities for all the peoples in the Society, old and young, male and female, according to the perpetual full-time and part-time educational system.

3.3.3. Duties and Responsibilities

The objective from discussing the duties and responsibilities of the various Departments and Directorates of MOE is to lay down the foundations on which the proposed budgetary reform would be based. Related activities that are part of the duties and responsibilities of various departments according to the current system may be grouped in one program according to the proposed system.

In the following paragraphs we are going to describe the main duties and responsibilities of the key directorates in MOE:

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 83 -

a- Directorate of Financial Affairs and Budget

The Directorate of Financial Affairs and Budget at MOE reports to the Assistant Undersecretary for Administration and Financial Affairs. The following are the main duties and responsibilities of this Directorate:

1. Study and prepare budget estimates, discuss them with MOE's officials to prepare the budget.
2. Prepare the annual budget in its final form according to the instructions of MOFNE and the policy of MOE.
3. Study the feasibility of proposed projects and financial plan, analyse these plans to reach the future budget estimates.
4. Prepare statistical reports, explanatory notes, detailed financial statements related to the accounting transactions and the financial position of the Ministry and submit them to MOFNE.
5. Participate in the analysis of educational costs.
6. Organise financial management process at schools, assess their financial position and prepare the final accounts.
7. Conduct internal audit on schools, Ministry's organisational and cultural attachees and take necessary steps to correct deviation from norms.
8. Review and develop financial systems to be in line with the proper accounting practices.

b- Directorate of Personnel Affairs

There are several duties and responsibilities that are carried on by the above mentioned Directorate. However, the following are the main duties & responsibilities of the Directorate of Personnel Affairs :

1. Implement the Civil Service personnel policy, regulations and circulars of MOE.
2. Study the manpower requirements in co-ordination with other Directorates based on financial funds / resources and the approved organisation chart.
3. Meet staffing requirements, review promotions and organise teachers transfers.
4. Prepare payroll, allowances and all personnel actions.
5. Organise and follow up the Ministry's requirements for administration training, follow-up implementation with other Directorates at MOE and supervise the financial affairs of sponsors in Bahrain and abroad.
6. Promote morale and performance of staff in the Ministry.
7. Organise and conduct the recruitment functions.
8. Participate in the planning and career development of the Ministry Staff and co-ordinate training programmes with Civil Service Bureau (CSB).

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 85 -

c- Directorate of Primary Education

This Directorate reports to the Assistant Undersecretary for General and Technical Education and its main duties and responsibilities are to:

1. Prepare studies on educational programmes and school administration and to encourage initiatives and recommendations for school self development.
2. Study schools' need for manpower, materials, tools, additional classrooms, facilities, premises and follow-up their availability with other Directorates at MOE.
3. Monitor progress in educational services, assess educational programme effectiveness, and measure educational performance to present the results to the Education Committee headed by H.E. the Minister of Education.
4. Develop criteria for transfer of teachers and school administrators and participate in performance appraisal preparation accordingly.
5. Search for the appropriate methods for the career development of employees in the schools and participate in conducting orientation sessions in co-operation with Directorates concerned.
6. Administrative and technical supervision of the work process in primary schools.
7. Participate in the planning, development, and application of new ideas and systems in Primary Education, and execute the approved educational experiments.

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 86 -

d- Directorate of Intermediate and Secondary Education

This Directorate reports to the Assistant Undersecretary for General and Technical Education and its main duties and responsibilities are to:

1. Prepare studies on educational programmes and school administration, and to encourage initiatives and recommendations for school self-development.
2. Study schools need for manpower, materials, tools, and additional classrooms.
3. Assess and develop educational programmes.
4. Develop criteria for transfer of teachers, school administrators, and participate in the preparation of the performance appraisal accordingly.
5. Survey and study the needs for the professional development of employees at schools and prepare and execute the training programmes in co-operation with concerned Directorates.
6. Participate in the planning and development of educational programmes and systems, in addition to the introduction of new programmes and systems in the Intermediate and Secondary Education.
7. Organise the development and evaluation process of the schools in co-ordination with concerned parties/Directorates.

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 87 -

e- Directorate of Adult Education

This Directorate reports to the Assistant Undersecretary for General and Technical Education and its main duties and responsibilities are to:

1. Prepare the policy for the adult and continuing education programmes, and set rules and regulations to organise them.
2. Prepare, implement, and evaluate the general plans for the programme.
3. Monitor all the literacy, adult, and continuing education centres.
4. Develop the public awareness about literacy education in conjunction with concerned bodies, and to encourage the private and public establishment to participate in these programmes.
5. Manage the National Literacy Fund.

f- Educational Technology Centre

This Directorate reports to the Assistant Undersecretary for Curricula and Training, and its main duties and responsibilities are to:

1. Promote and evaluate the use of educational technology to fulfil the continuous development needs of educational curricula.
2. Design models for use as teaching aids in the development of teaching methods.

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 88 -

3. Develop and establish educational resources centres in the schools and provide them with the necessary guidance on the use of such resources.
4. Produce and supply films, audio tapes, maps, slides, and educational cards and models to the schools to fulfil the educational needs, in addition to the follow-up of their usage and evaluation of their effectiveness in co-operation with Curriculum Directorate and the concerned schools.
5. Organise, direct, and develop educational resource centres to achieve educational objectives.

g- Directorate of Curriculum

This Directorate reports to the Assistant Undersecretary for Curricula and Training and its main duties and responsibilities are to:

1. Set plans for curriculum development project, write curriculum, follow-up their application in the schools, evaluate and amend them periodically.
2. Conduct field research and studies on curriculum development, teaching methods and evaluation tools and monitor their application.
3. Supervise educational guidance process given to teachers of all subjects in the public schools, evaluate their performance and develop remedial plans to improve their practical and behavioral efficiency by using various methods.
4. Develop evaluation and testing tools and establish diagnostic criteria for intelligence and aptitude tests in the public schools.

5. Set up general examinations, conduct analysis or promotional examinations, and supervise the making of these examinations.

h- Directorate of Training

This Directorate reports to the Assistant Undersecretary for Curricula and Training and its main duties and responsibilities are to:

1. Conduct research and studies on the training needs of the academic employees and determine implementation priorities.
2. Plan the training programmes by sorting out skills and type of training.
3. Plan the implementation of the training programmes by setting up the goals, designing of the curriculum methods, arranging for lectures, determining the place and time and estimating the training financial costs/ requirements.
4. Maintain the quality of the training programmes in accordance with the standards recognised by international bodies.
5. Monitor and analyse the training results and issue official certificates to the trainees.

3.3.4. Budget Preparation Process

The first principal step in the budget preparation process at MOE is the “Budget Plan” for the next two years budget. The budget plan is prepared by the Directorate

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 90 -

of Finance and Administration based on the "Budget Circular" received from the State Budget Directorate at MOFNE which reflects the economic and financial forecasts for the government, and on MOE's previous experience and future plans.

The Budget Plan is approved by the Budget Committee (whose members are from high authorities at MOE) and then distributed to all MOE Directorates and Centres. This plan shows the duties and responsibilities of various Directorates regarding the submission of their proposals for the coming two years budget requirements and the deadlines to submit these proposals. The following are examples of what the 1991 and 1992 Budget Plan stated:

- a. The Directorate of Planning and Programming should decide upon the number of teachers that are required by the educational process for the next two academic years according to the level of study. The final date to submit a report regarding this matter is nine months before the start of the budgetary period.
- b. Both the Directorate of Elementary Schools and the Directorate of Primary and Secondary Schools should forecast their needs of the Administration and Academic staff for the new schools that will open during the next two academic years. The final date to submit a report regarding this matter in nine months before the start of the budgetary period.
- c. The Directorate of Planning and Programming in co-operation with the Directorate of Finance and Administration should make a list of the MOE projects for the next two years according to priority order and submit it to the Budget Committee at the end of the first quarter of the current financial year.
- d. The Directorates should prepare their next year budget at a similar level

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 91 -

of expenditure as the current budget after subtracting the projects and other expenditures added to the current budget.

- e. The Directorate of Services should prepare the budget forecasts for all the services and maintenance costs of MOE. The forecast should be submitted least nine months before the start of the budgetary period.
- f. The Directorate of Finance and Administration should prepare the manpower budget for the next two years using the computer software designed for this purpose. This budget should be prepared in co-operation with the Directorate of Personnel and the Educational Information Department Documenting Centre at least nine months before the start of the budgetary period.

Based on the reports and proposals received from the various Directorates and Centres at MOE, the Budget Committee will then prepare the draft budget for the Ministry and send it to the Educational Committee (headed by H.E. the Minister of Education) for approval.

After the approval of the Educational Committee of the draft budget, it is sent to the State Budget Directorate for review and study. Then a meeting is held between the concerned parties in both MOE and MOFNE to discuss the draft budget and to finalise it.

Type of budgets in the Ministry of Education

MOE expenditures can be divided into two main budget categories, the projects expenditure and the recurrent expenditure. This classification is followed in all other departments of the government.

a) The projects budget

This basically includes the expenditure on the construction projects such as building of new schools, purchase of motor vehicles and school buses, the furniture, furnishing and equipment costs, and the costs of major repair and maintenance of schools, furniture, and other equipments. The expenditure from this budget is mainly controlled by the Public Works Affairs.

b) The Recurrent Budget

The recurrent budget of MOE is put together (as shown in the previous section) incrementally and presented in traditional line item fashion. The content of this budget is by object (i.e. divided according to Chapters, Sections and Items), and the expenditure classification is by cost centres (i.e. various departments and centres in MOE). Therefore, the main purposes for this type of budget (i.e. traditional line-item) is to impose control over the government money and hold the government establishment accountable. Appendix 3 shows the budget classification structure for the MOE.

3.4. DISADVANTAGES AND ADVANTAGES OF TRADITIONAL BUDGETING

After this brief discussion of budgetary process as followed by MOE, the main disadvantages and advantages of the Traditional Budgeting system will be described in this section. The disadvantages are discussed first since the purpose of this study is to develop a budgetary system to overcome those disadvantages.

3.4.1. Disadvantages of the traditional budgeting

- a- According to the traditional budget system, the control period over government expenditure remains to be the current year and accounts are finalised at the end of each year. The capital spending unspent balances are carried forward. Therefore, the budget review may be viewed as one that focuses on detailed spending matters e.g. control over the rate of disbursement; rather than on the costs of programme and policy objectives, and the effect of expenditure on efficiency and effectiveness of these programmes (i.e. value for the money).
- b- The government's annual budget booklet issued by the State Budget Directorate at MOFNE only provides information related to expenditures by object and cost centres. It does not provide any basis/information regarding the economic and financial analysis. Furthermore, no correlation is made to government objectives and functions. Therefore, under the current system it is clear that the budget figures may well serve the purpose of financial control and accountability, but it provides no information as to expenditure effectiveness and efficiency with respect to objectives and functions.
- c- The use of cost and unit pricing analysis to evaluate performance is weak

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 94 -

(e.g. cost per student in public school cost per patient in government hospitals and medical centres, cost per KW of electricity produced, etc.). These data are important components that should be incorporated in the budgetary decision making process.

d- The processe of ranking activities according to their importance (i. e. prioritization process / mechanism) is weak in the government. This is an important matter as it enables the Ministries and Government Directorates to better respond to expenditure control **directives of MOFNE**.

e- With regard to the project expenditure, we could find cases where some projects are budgeted but not started during the year. Yet, they are not taken off the budget and thereby preventing other new projects from being funded. Therefore, what is needed is a prioritization mechanism (as mensioned above) to remove some of these projects in order to make room for newer (higher priority) ones. This will contribute greatly to the improvement of the Ministries' efficiency and effectiveness.

f- Under the currant budget classification code of MOE it is difficult to calculate costs directly related to the educational process (i.e. schools education cost) to be able to calculate the effeciency measurements as related to MOE.

Such difficulty is **encountered**.

factors:

1. The teachers and schools administrative staff training costs are allocated to the Training Directorate Cost Centre.
2. Some of the Chapter Two (Services) expenditure like electricity, water and telephone costs are allocated to the Services Directorate Cost Centre.

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 95 -

The costs of printing educational books and booklets are allocated to the Curriculum Directorate Cost Centre.

3. Chapter Three (Consumables) expenditure in total is allocated to various Directorates in MOE, for example, Finance and Administration Directorate (stationery costs), Educational Technology Centre (purchase of technical instruments and purchase of books for school libraries).
4. With regard to Chapter Four (Assets), only the cost of furnishing the schools is allocated to the Schools Directorates Cost Centres. Costs such as the curricula implementation educational instruments are allocated to the Curriculum Directorate Cost Centre. Other educational instruments and machines such as video recorders, T.V. sets and projectors are allocated to the Educational Technology Centre Cost Centre.
5. The major portion of Chapter Five (Maintenance) expenditure is allocated to the Public Works Affairs at the Ministry of Works, Power and Water because it is the governmental establishment that is responsible for the maintenance of all government properties (except motor vehicles and other heavy machinery which are maintained by the Ministry of Transportation). However, there is a budget for emergency maintenance of public schools, instruments and machines; this budget is allocated to the Services Directorate and Educational Technology Centre Cost Centres.
6. All the furnishing, instruments, materials and supplies costs related to the new schools are allocated to the Planning and Programming Directorate Cost Centre.

The philosophy behind the above mentioned procedure/practice of dividing the educational budget among various Cost Centres/Directorates is to allocate the

budget to the place responsible and authorised to provide and control the service/ goods provided.

3.4.2. Advantages of the traditional budgeting

Despite the disadvantages of the traditional budgetary system as discussed above, it has not been replaced by any of its outstanding competitors. This is due to the following unique features of the traditional budgetary system which makes it appealing for different States and Governments to adopt. These features include:

- a- The line-item budgeting closely parallels the lines of responsibility in the Ministries. Thus, it helps MOFNE to control Ministries and Government Directorate expenditure.
- b- Traditional budgeting makes calculations easy and precise because it is not comprehensive. History provides a strong base on which to rest a case. The present is considered on the basis of the past, which may be known, rather than the future, which is difficult to know. However, this can also be a disadvantage, because comparing this year with last year may not mean much if the past was a mistake and the future is likely to be a bigger one. Thus, a quick calculation, if it is grossly in error, may be worse than no calculation.
- c- Under line-item budget, choices that might cause conflict are fragmented so that not all difficulties need to be faced at one time.
- d- Budgetors may have objectives, but the budget itself is organised around

CHAPTER THREE : THE GOVERNMENT BUDGETARY PROCESS

- 97 -

activities or functions - manpower, consumables, maintenance etc. Therefore, one can change objectives without dramatically changing the budgets (provided that the existing budget can appropriately serve the new objectives).

e- Unlike most budgetary systems, traditional budgeting does not demand analysis of policy; neither, however, does it inhibit it. Thus, because it is neutral in respect of policy, traditional budgeting is compatible with a variety of policies, all of which can be converted into line-items.

f- Short term budgeting (every year, or even more than once a year) aids economic adjustment through government monetary policy.

In summary, traditional budgeting lasts because it is simpler, easier, more controllable, and more flexible than modern alternatives such as zero base budgeting and PB. To be useful, a budgetary process should perform tolerably well under all conditions. It must perform in face of the unexpected - deficits and surpluses, inflation and deflation, economic growth and economic stagnation. It is not so much that traditional budgeting succeeds brilliantly on all the above, but rather that it does not fail entirely on any one of them (Wildvasky 1986).

CHAPTER

FOUR

Chapter Four

THE PROPOSED BUDGETARY SYSTEM

4.1 INTRODUCTION

One of the most important lessons is that one should learn from the experience of others. Thus, experience of the countries which implemented the PB shows that this system as discussed in Chapter Two has failed in most of the countries that implemented it because of the major disadvantages inherent in the system and because of the lack of understanding of the PB by the people who implemented it. On the other hand, it is not recommended that the Government continues using the traditional budgetary system with its major weaknesses that we have already covered in Chapter Three. Indeed, there is no one budgetary system that will satisfy all the needs of the government. "Bounded rationality" suggests to us that due to the scarce resources, we should not optimise, rather, we should satisfy.

Therefore, the ability of a budgetary form to score high on one criterion may increase the likelihood if its scoring low on another. Accordingly, there may well be no ideal mode of budgeting. If so, this is the question "Do we choose a budgetary process that does good on one criterion but terribly on others?" Or do we opt for a process that satisfies most of our demands from a budgetary process even though it does not score brilliantly on all of them? This is then what we hope that our proposed budgeting form will achieve.

Based on the above, this chapter will describe a proposed budgetary system that is indeed not a complete budgetary reform; rather, it is a modification of the current system that takes into consideration the weaknesses in the traditional budgeting and the strengths in PB.

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 99 -

The framework of the proposed system consists of five main phases, namely, the mission development, setting the objectives, crafting a strategy, development of performance indicators, and program structuring.

4.2. DEVELOPING A MISSION

The most basic direction-setting question facing the senior authorities of MOE (and of course any other organization) is "What is our Ministry's business and what will it be?" Developing a thoughtful answer to this question pushes MOE authorities to think through the mix and scope of their educational programmes and activities, to consider what they should be doing and not doing. At this context "a mission is a statement that broadly outlines the organisation's future course and serves as a guiding concept (Thompson 1989).

Currently, MOE mission can be summarised in the following statement that was extracted from MOE annual report for 1988/89: "Publication of the education through providing the necessary educational facilities for all the citizens who are at the study age".

It is important to remember that the task of communicating the mission to subordinate employees (Directors, Superintendents, Headmasters and Teachers) is almost as important a task as that of developing the mission. If senior authorities at MOE fail to communicate the mission in ways which convey a sense of urgency and purpose, or if they do not provide a convincing rationale for why the Ministry has to move in this direction, then the mission statement does little to induce changes in the attitudes, thinking, and behavior of employees - a behavior that makes it much harder to move the Ministry to the desired direction.

4.3. SETTING OBJECTIVES

The act of setting formal performance objectives not only converts an organisation's mission and direction into specific performance targets to be achieved, but also helps protect against drift, confusion over what to accomplish, and a toleration of undemanding results (Thompson 1989). Both short-term and long-term objectives are needed. Short-term objectives draw attention to what immediate results to achieve, for example, to reduce the cost per student in the primary schools by 10% next year without affecting the current quality and quantity of services provided to them.

Long-term objectives put pressure on educational authorities to consider what to do now to have the Ministry Departments to produce good results later. Thus, having long-term objectives pushes the concerned authorities (Undersecretaries, Directors, Superintendents, Supervisors, Headmasters, etc.) to weight the impact of today's decisions on longer-term performance. Along term objective for MOE could be to "increase the number of graduates from industrial secondary schools by 5% in the coming five years to meet the increase in the market demand for those".

Based on the objectives described in this Section and the strategies described in Section 4.4, the researcher will be able to formulate educational programs which will become the basis for the proposed budgetary process.

It is essential that performance objectives be stated in quantifiable or measurable terms and that they contain a deadline for achievement. For the direction-setting purposes of objectives to be fulfilled, objectives need to meet five specifications (Thompson 1989):

- a - An objective should relate to a single, specific topic.

- b - An objective should relate to a result not to an activity to be performed.
(The objective is the result of the activity, not the performing of the activity).
- c - An objective should be measurable (stated in quantitative terms).
- d - An objective should contain a time deadline for its achievement.
- e - An objective should be challenging but achievable.

The educational objectives of MOE

The following educational objectives are extracted from the "Five Years Educational Plan" of MOE. These objectives are divided into three categories as follows:

4.3.1 Base Education

The educational plan for the years 1989/90 - 1994/95 (from now on it will be referred to as the five year plan) of MOE states that the base education consists of the primary and elementary education. The objectives of the two educational levels are:

- a. The creation of citizens who possess the base of general culture and essential skills that are built on valid traditions, directions and skills.
- b. To enable those citizens to continue the education in its variety.

However, these objectives are general (i.e. qualitative) and not measurable (i.e. quantitative). Therefore, it becomes very difficult to use them for performance.

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 103 -

As a result, they need to be redefined in a measurable form so that they can be used for performance evaluation. For example, the above objectives can be restated as follows:

- a) As an attempt to reduce the level of illiteracy, the number of students accepted in the primary schools to be increased by 2% on yearly basis for the next five years.
- b) To improve the effectiveness of the educational process, the student-teacher ratio should decrease from 35 to 30 in the coming three years.
- c) Implementation of the "classroom teacher program" in all class levels of primary schools by the academic year 1991/92.

4.3.2 Secondary Education

The following objectives that are related to the secondary education level are extracted from MOE five year plan:

- a) To develop the productive work attitude in the students.
- b) To encourage the students to make the best of their leisure time and develop their continuing education.
- c) To supply the market with the manpower required to develop the various sectors of the economy (i.e. commercial, industrial, health, tourism, etc..).
- d) To ensure the attainment of the minimum level of general literacy by all the secondary level students. This will be achieved by teaching general

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 104 -

as well as specialised courses in the secondary level of education.

However, the above mentioned objectives are general (i.e. qualitative) and not measurable (i.e. quantitative). Therefore, it becomes very difficult to use them for performance. As a result, they need to be redefined in a measurable form so that they can be used for performance evaluation. For example, the above objectives can be restated as follows:

- a) To develop the students knowledge and attitude toward studying, the "courses system" should be implemented in the General and Commercial Secondary education levels from the academic year 1989/90.
- b) To meet the market demand for the industrial students, the number of graduates from the Industrial Secondary Schools should increase by 5% in the coming three years.
- c) To meet the market demand for the hotel and tourism students, the number of graduates from the Hotel and Tourism Specialisation should increase by 2%, 3%, 3% in the years 1989, 1990, and 1991 respectively.
- d) To be able to implement the "courses system" in the Secondary Schools, the study day should be extended from five hours to six hours starting from the academic year 1988/89.

4.3.3 Continuing and Adult Education

The following objectives that are related to the continuing an Adult Education Program of MOE are extracted from the five years plan:

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 105 -

- a) To reduce the literacy level in the country through educating about 15,000 illiterates who are between the age 10-44 years.
- b) To encourage the illiterate to pass the "base phase" which is a two year study period to be eligible to enter in the "continuing phase" which equates the fifth and sixth class levels in the primary schools.
- c) To encourage the self confidence in the citizen which enables him to continue his education and develop his skills and knowledge.
- d) By the end of the year 1999, total graduates from the continuing education program should be 10,000 students.

4.4. CRAFTING A STRATEGY

Managers always have some discretion in choosing how to achieve target objectives. Whereas objectives represent the "ends", strategy represents management's "means" of accomplishing its objectives. In definitional terms, Strategy is the pattern of approaches and moves crafted by management to produce successful performance (Thompson 1989).

Based on the five years plan, the various strategies that MOE can follow to achieve the objectives mentioned in the previous section includes the following:

4.4.1. Base Education

- a. Introduction of the "classroom teacher program in the primary education level".
- b. Implementation of the "improved education curricula program" in the primary schools to match with the introduction of the "classroom teacher program" mentioned above.
- c. Send the school headmasters and teachers in training courses at the College of Education in the University of Bahrain.
- d. Increase the number of classrooms in the first three levels of primary education from 893 rooms in the academic year 1988/89 to 1408 rooms in the academic year 1994/95.
- e. Increase the number of base education level schools, specially in the areas where the number of population at school age is high.

4.4.2. Secondary Education

- a- The continuous improvements in the curriculum of the secondary education to cope with the market demand and higher education requirements.
- b- Introduction of new education branches, like what happened in early 1980s where the MOE created new branches such as the Health Science, Hotel and Tourism, Agriculture and Animal Wealth, etc.
- c- MOE started to implement the "courses system" in two commercial and general secondary schools in the academic year 1990/91.
- d- The number of teaching hours is reduced to 20 hours per week to the teachers who act as advisors to the students.
- e- Introduce elective courses to provide more choices for the students and to enlarge their general knowledge.
- f- Build new schools to occupy the increase in the number of students. These schools are supplied with the necessary instruments, equipments, laboratory items, etc.

4.4.3. Continuing and Adult Education Programme

- a. Issuance of the compulsory education law and provision of grants and supports to poor families.
- b. Conduct an investigation to know the total number of illiterates in Bahrain who are between the ages (40-44 years) and 10-14 years). Also, more

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 108 -

control is imposed on the number of school leavers.

- c. Open schools on part-time basis to encourage working students to study in the afternoons.
- d. Encourage the self motivation in the illiterates to continue their education.

At this stage, it is important to make clear a number of points. First, one of the most important strategies is the proposed budgetary modification at MOE. This modification should provide the necessary information to evaluate the educational system financial performance through comparing the results with the desired objectives.

Second, strategies should not only be decided at the top authority level of MOE, rather, all the levels of the organisation should participate in crafting the strategies because all of them will be responsible to carry it on.

Third, as we have seen above, strategies should be related to the objectives, therefore, if objectives are changed, strategies should be modified accordingly.

Finally, the objective and strategies discussed above represent an attempt by this researcher to provide the guidelines to set objectives and craft strategies, therefore, the above mentioned objectives and strategies are subject for change depending on the situational analysis at MOE.

4.5. DEVELOPING OF PERFORMANCE INDICATORS

Measurement of performance is one of the key elements in the proposed system. It is used to formulate and control the budget, ensure accountability of individuals and departments (Directorates & Schools), and analyse and improve operations.

In the following paragraphs we will discuss the proposed performance indicators that should be used for the evaluation of the educational performance of MOE. These indicators are applied in other countries and were extracted from books that are specialized in the educational field (see Bibliography).

4.5.1 Input Indicators

The adequacy of the financial effort with respect to education between different countries and different periods within a given country is usually measured by employing the following input ratios (Vasudevan, 1976):

- a) Educational expenditure as a percentage of GNP
- b) Percentage of education expenditure to the Government expenditure
- c) Percentage of education expenditure to the social sector expenditure;
and
- d) Educational expenditure per capita.

For the purpose of this research, the term "educational expenditure" will mean the total recurrent expenditure of MOE for a particular fiscal year.

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 110 -

The Educational Expenditure as a percentage of GNP ratio measures the financial commitment and emphasis made by the government to the public education system. The inter-country comparison of this ratio over a period of time is a useful tool for budgetors, planners and policy makers.

The ratio of the educational expenditure as a proportion of the total government expenditure and the ratio of educational expenditure as a percentage of social sector expenditure can, again, be useful in the context of studying intemporal variations in the government efforts on education. However, for international comparison purposes, there is a necessity to restrict comparisons of this ratio to the countries following similar economic and social philosophies (e.g. GCC countries only), this is because the share of government expenditure in GNP varies from country to country and is higher in a socialist economy than in one built on free enterprise (Vasudevan).

Finally, the ratio of educational expenditure per capita can be of interest for the purpose of comparison between two points of time.

At this stage, it must be emphasized that the above mentioned input indicator ratios should be used in conjunction with each other in assessing the adequacy of the financial effort on educational development in Bahrain over a period of time or with reference to other countries. Further, it is important to understand that the above mentioned ratios might help to compare the financial efforts on education made by Bahrain and other countries, however, they do not reveal the quality of education provided by them with equal amounts of real educational resources.

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 111 -

EXHIBIT 4.1 : SUMMARY OF THE INPUT INDICATORS

No.	Indicator name	Method of calculation
1	% of educational expenditure to GNP	$\frac{\text{Educational expenditure}}{\text{GNP}}$
2	% of educational expenditure to Government expenditure	$\frac{\text{Educational expenditure}}{\text{Total Government expenditure}}$
3	% of educational expenditure to social sector expenditures	$\frac{\text{Educational expenditure}}{\text{Government expenditure on social sector}}$
4	Education expenditure per capita	$\frac{\text{Educational expenditure}}{\text{Total population}}$

4.5.2 Process Indicators

The process indicators are used to measure the ways education system operates - (the ways they process inputs to provide outputs). In other words, they measure the internal efficiency of the educational system. The following are the most common types of process indicators (Comb P. & Hallak. J. - 1972/ Johnston J. - 1991):

- a. Distribution of schools education costs by type of expenditure.

Generally, the schools education costs (i.e. costs directly related to schools) are divided into five categories, namely, manpower, services, consumables, fixed assets, and maintenance costs. The most significant one is the manpower costs followed by the cost of purchasing fixed assets. Therefore, the ratio between each type of these costs to the total schools education costs shows the emphasis that MOE is giving to each of them. The examination of the trends for a period of time can provide the necessary information for policy makers and planners for decision making purposes.

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 112 -

b. Distribution of schools education costs by level of education

The educational system in Bahrain divides the education into three different levels, namely, primary education, intermediate education, and secondary education. The length of education period in the primary schools is six years and in the other two levels is three years each. Therefore, generally we should expect that the total expenditure devoted to the primary education level should relatively be more than each other two levels. On the other hand, we should expect that the money spent on the purchase of educational equipments and instruments should be higher in the secondary level than the other two levels because of the extensive use of science and computers laboratories. Therefore, the examination of the ratio of expenditure between the various educational levels over a number of years is considered a good tool for budgeting, planning and decision making.

c. Average unit cost per student

This measure is considered as one of the most important indicators that are used to measure the internal efficiency of the educational system. In economic or financial term. This ratio can be computed for all educational levels as well as for each educational level. Therefore, the comparison between the changes in the unit cost per student within and among each level of education for a period of time should be examined and reasoning for the significant deviations should be provided. Acceptable reasons for the increase in the average unit cost per student over a period of time could be the introduction of better curricula, technical innovations in education, recruitment of better qualified teachers, and more adequate provision of educational materials and supplies. On the other hand, decrease in the average unit cost per student could be as a result of better utilisation of the current resources or

overcrowding in classrooms, and an increase in the proportion of unqualified teachers.

A comparison can be made between the average unit cost per student in Bahrain with comparative reported figures of other GCC countries and ratios published by UNESCO. A relatively higher figure might for example indicate that other countries are spending on more expensive educational facilities, a better qualified teachers or inefficient use of educational resources by Bahrain.... and so on. Therefore it is important that such data should be interpreted with caution, because the factors that affect the costs in each situation can vary dramatically and also because of other special factors.

Another difficulty in relying on average cost indicators is the uncertainty about what may be assumed about the quality of the process and outputs. This leads to ambiguity in the interpretation of the average cost data. By one interpretation, high unit costs are looked upon favourably as an indicator of high quality educational process. Alternatively, high costs may be taken to indicate inefficiency or, more neutrally, they could be the result of factors such as the inherited age and qualification structure of schools staff on its location.

Despite the above limitation MOE should not neglect cost data entirely. For example, data on average cost per student in a particular cost centre (e.g. education level at school) should trigger questions. If unusually high, are they compensated by high quality of output (e.g. number of grad rates as compared to last year) in the relevant cost centre, or explained by extraneous factors. On the other hand, if the cost per student is unusually low, the question can might be raised regarding reasons of such decline.

d. Teacher-Utilisation ratio

The size of the student-teacher ratio is influenced not only by the average number of students per class, but, by several other factors as well. Among the most important of these are the number of hours of in-class teaching per week and the average weekly teaching load of the teacher. In addition, the ratio depends upon the number of subjects taught, the proportion of specialised subjects in the curriculum and the proportion of time assigned to their teaching, the number of subjects a teacher can handle, and the number of specialised teachers (Cooms P. and Hallak J.).

The importance of a study of student-teacher ratios in educational planning and budgeting is derived from the fact that if they can be allowed to increase without lowering the quality of education, it will be possible to increase school capacities and hence reduce the cost of providing education to a child/student. Whether or not the number of students assigned to a teacher can be increased will depend upon the interplay of all the factors mentioned above.

The student-teacher ratios over time can be compared within each level of education, within the Ministry, with GCC countries, and ratios published by UNESCO. To be useful, the changes in the ratios should be assessed in a manner that takes into consideration the factors mentioned above. For example, an increase in the student-teacher ratio within the level could be due to the increase in the number of students, decrease in the load on the teachers because of reasons related to the health condition of some of the staff members etc.

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 115 -

EXHIBIT 4.2 : SUMMARY OF THE PROCESS INDICATORS

No.	Indicator name	Method of calculation
1	Distribution of schools education costs by type	a) $\frac{\text{Manpower expenditure}}{\text{Total schools education costs}}$ b) $\frac{\text{Fixed Assets expenditure}}{\text{Total schools education costs}}$ c) $\frac{\text{Other expenditures}}{\text{Total schools education costs}}$
2	Distribution of schools education costs by level of education	a) $\frac{\text{Expenditure on primary level}}{\text{Total schools education costs}}$ b) $\frac{\text{Expenditure on intermediate level}}{\text{Total schools education costs}}$ c) $\frac{\text{Expenditure on secondary level}}{\text{Total schools education costs}}$
3	Average unit cost per student in Government schools	$\frac{\text{Total schools education costs}}{\text{Total number of students}}$
4	Average unit cost per student by level of education	a) $\frac{\text{Expenditure on primary level}}{\text{Total No. of students in primary level}}$ b) $\frac{\text{Expenditure on intermediate level}}{\text{Total No. of students in intermediate level}}$ c) $\frac{\text{Expenditure on secondary level}}{\text{Total No. of students in secondary level}}$
5	Teacher utilisation ratio in Government schools	$\frac{\text{Total number of students}}{\text{Total number of teachers}}$
6	Teacher utilisation ratio by level of education	a) $\frac{\text{Total number of students in primary level}}{\text{Total number of teachers in primary level}}$ b) $\frac{\text{Total number of students in intermediate level}}{\text{Total number of teachers in intermediate level}}$ c) $\frac{\text{Total number of students in secondary level}}{\text{Total number of teachers in secondary level}}$

4.5.3 Output Indicators

The conventional practice is to treat educational output as the number of school graduates from the different levels of the educational system with specific educational

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 116 -

attainment. According to the view taken this research, the output of education is defined as the total number of students who leave the system at any time, after acquiring varying amounts of physical or mental capabilities, knowledge, abilities and competencies, interests and attitudes.

The most common output indicator is the average recurrent cost per graduate. If there were no drop-outs or repetitors, the total recurrent cost per graduate could be calculated by multiplying the annual schools recurrent expenditure per student by the normal length of cause in each level of education. However, as drop-out and repetition do exist in all the educational system levels, they should then be taken into consideration in calculating the average cost per graduate and that is by adjusting the length of course in each level of education.

One way of appraising the efficiency of the educational system or of different levels within the system is to compare the average cost per graduate over different periods of time and with the cost in other GCC countries as well as other Countries.

One of the common factors that could lead to an increase in the cost per graduate is rate of educational wastage, which in turn affects the efficiency of the educational system. The two main factors of the educational wastage are (a) the students who abandon study before reaching the terminal points (i.e. drop-outs) and (b) the students who repeat the same studies as in the previous year (i.e. repeaters). Therefore, in assessing an educational system, special attention should be given to these factors and actions should be taken to diagnose the causes of the problem and try to solve them.

An important question needs to be answered at this stage is "what are the economic and other consequences of repetition and drop-outs"? To the student himself, it involves an additional year(s) income foregone, and extra studying expenses, all of which could have been avoided. Further, in societies where educational

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 117 -

resources are limited and consequently the places in schools are also correspondingly few, the repeating student may well be depriving another more-meritorious pupil of a place in the educational system. Furthermore, the effective working life of the student is reduced to the extent that he stays in same class over again and this implies a wastage of manpower resources or higher education students and a correspondingly lower return from the investments in education to society. For drop-out students, this could lead to the increase in the rate of unemployment especially in the clerical working sectors. Finally, apart from these adverse economic consequences, repetition and drop-outs lead to undesirable psychological effects on the student.

For all the above mentioned reasons, it is important to conduct a complete review of methods used in checking a student's progress needs (and one of them of course is to measure the cost per student and graduate) to be undertaken in Bahrain as a attempt to discover ways and means to lower repetition and drop-out rates if the performance indicators show that the rate is high as compared with the previous years and other countries.

EXHIBIT 4.3 : SUMMARY OF OUTPUT INDICATORS

No.	Indicator name	Method of calculation		
1	Average cost per graduate in the Government schools	Average cost per student	X	Average study period in Government schools
2	Average cost per graduate by level of education	a) Average cost per student in primary level	X	Average study period in primary level
		b) Average cost per student in intermediate level	X	Average study period in intermediate level
		c) Average cost per student in secondary level	X	Average study period in secondary level

4.6 PROGRAM STRUCTURING

Program structuring is one of the most important ingredients of the proposed budgeting system. At this stage, MOE should transform its existing cost structure (input-oriented) into output-oriented information structure. It is a way of organisation the budget and expenditure data to show how much is spent or should be spent for MOE's various activities and purposes, irrespective of its existing organisational structure (although the reader of this research might notice that there is, in certain areas, some relationship between the proposed budgeting system and the organisation structure of MOE), this was mainly to simplify the implementation of the proposed system.

Exhibit 4.4 shows the proposed budget structure for MOE. The structure divided MOE budget into programs, sub-programs, and elements. Indeed, this can be further divided into sub-elements, components and sub-components depending on the Ministry's desire and cost-benefit analysis of this detailed classification. The following paragraphs describe the proposed structure.

EXHIBIT 4.4 : THE PROPOSED BUDGET STRUCTURE FOR MOE

BUDGET CLASSIFICATION CODE			PROGRAM DESCRIPTION	
PROG	SUB-PROG	ELEMENT		
01			x	SCHOOLS EDUCATION
01	01		xx	PRIMARY EDUCATION LEVEL
01	01	01	xxx	MANPOWER EXPENDITURE
01	01	02	xxx	SERVICES EXPENDITURE
01	01	03	xxx	CONSUMABLES EXPENDITURE
01	01	04	xxx	FIXED ASSETS EXPENDITURE
01	01	05	xxx	MAINTENANCE EXPENDITURE
01	01	06	xxx	OTHERS
01	02		xx	INTERMEDIATE EDUCATION LEVEL
01	02	01	xxx	MANPOWER EXPENDITURE
01	02	02	xxx	SERVICES EXPENDITURE
01	02	03	xxx	CONSUMABLES EXPENDITURE
01	02	04	xxx	FIXED ASSETS EXPENDITURE
01	02	05	xxx	MAINTENANCE EXPENDITURE
01	02	06	xxx	OTHERS

CHAPTER FOUR : THE PROPOSED BUDGETARY SYSTEM

- 119 -

EXHIBIT 4.5 : Continued

BUDGET CLASSIFICATION CODE			PROGRAM DESCRIPTION
PROG	SUB-PROG	ELEMENT	
01	03		xxx SECONDARY EDUCATION LEVEL
01	03	01	xxx MANPOWER EXPENDITURE
01	03	02	xxx SERVICES EXPENDITURE
01	03	03	xxx CONSUMABLES EXPENDITURE
01	03	04	xxx FIXED ASSETS EXPENDITURE
01	03	05	xxx MAINTENANCE EXPENDITURE
01	03	06	xxx OTHERS
02			x HIGHER EDUCATION
02	01		xx STUDENTS SCHOLARSHIP
02	01	01	xxx B.SC
02	01	02	xxx PGD
02	01	03	xxx MBA
02	01	04	xxx PH.D
02	01	05	xxx OTHERS
02	02		xx ACADEMIC STAFF SCHOLARSHIP
02	02	01	xxx B.SC
02	02	02	xxx PGD
02	02	03	xxx MBA
02	02	04	xxx PH.D
02	02	05	xxx OTHERS
02	03		xx ADMIN STAFF SCHOLARSHIP
02	03	01	xxx B.SC
02	03	02	xxx PGD
02	03	03	xxx MBA
02	03	04	xxx PH.D
02	03	05	xxx OTHERS
03			x ADULT AND CONTINUING EDUCATION
03	01		xx EMPLOYEE REMUNERATIONS
03	02		xx PURCHASE OF FIXED ASSETS
03	03		xx MAINTENANCE
03	04		xx OTHER
04			x STUDENT ACTIVITIES AND SERVICES
04	01		xx SCOUTING
04	02		xx SPORT ACTIVITIES
04	03		xx SOCIAL AND CULTURAL ACTIVITIES
04	04		xx STUDENT SERVICES
04	05		xx OTHERS
05			x CORPORATE SUPPORT
05	01		xx PUBLIC RELATIONS
05	02		xx FINANCIAL & ADMINISTRATIVE
05	03		xx PLANNING & PROGRAMMING
05	04		xx RESEARCH & DEVELOPMENT
05	05		xx PUBLIC LIBRARIES
05	06		xx OTHERS

4.6.1 Schools Education Program

The first and the most important program is the Schools Education which includes all the recurrent costs incurred to run all the government schools. This program is divided into three sub-programs by the three levels of education (namely, primary level, intermediate level, and secondary level). The total recurrent costs for each level is aggregated and further sub-divided into elements that consist of the type of expenditure. Under each sub-program we have six elements, namely, the manpower expenditure, services expenditure, consumables expenditure, fixed assets expenditure, maintenance expenditure and other expenditures.

The importance of this budget classification code is to facilitate the calculation of the ratios recommended in the previous section of this chapter for the measurement of the educational system efficiency. The benefits of these indicators for budgeting, planning, and policy making are already discussed in the previous section.

4.6.2 Higher Education Program

The second proposed program is the higher education. This program is divided into three sub-programs by type of persons sent on scholarship for further education. The three types are the students, academic staff and administrative staff. This sub-division is useful for comparison purposes within each type or among the three types. For example, the scholarship cost per student can be calculated for several years and trends are examined. Also, this cost can be compared with the scholarship costs in the other two sub-programmes.

The sub-programmes are further divided into six elements by the type of education i.e. B.SC, PGD, MBA, PH.D and others. A comparison of the scholarship costs per student in each type of education with those in the other two programmes can provide a good data for policy makers. For example, generally, the scholarship costs per student studying B.SC should be similar to the costs of an academic staff studying B.SC. However, significant variations should be investigated and acceptable reasons should be obtained. Variations could occur because of the differences in the educational cost provisions due to university and country differences. For example, a student sent on a scholarship to study in U.S.A. will cost the Ministry more than another student who is sent for the same purpose but to a university in Egypt. Other factors that affect the unit cost could be the type of specialisation (for example, in University of Bahrain the registration fees of engineering and science students are higher than the business and management students) and number of hours registered for.

4.6.3 Adult and Continuing Education

The adult and continuing education program is intended to provide the education opportunity for the people who passed the school age and the students who were unable to continue their full time education. This program is divided into four sub-programs by the type of expenditure. These sub-programs are, the employee remuneration, purchase of fixed assets, maintenance and other expenditure. The financially most significant sub-program is the employee remuneration which consists of the salaries paid to the teachers in the program, remuneration to the administrative supervisors, drivers, overtime expenses and other general expenses.

This program could provide us with the necessary data regarding the cost per student in the program which can be extracted by dividing the total program costs

by the number of students. This can further be compared with the cost per student in the full-time government schools. Generally, the cost per student in the adult & continuing education program should be lower than that in the Government schools because of the relatively low salaries paid to the part-time teachers in this program.

4.6.4 Student Activities and Services

The fourth recommended program is the student activities and services. This program is intended to provide the opportunity and help for every student to develop his/her physical and mental capabilities and skills and to prepare them for a co-operative life through the social activities. This program is divided into five sub-programs by the type of activity. Activity in the context of this program means any student work done outside the formal educational curriculum but under the supervision of MOE such as scouting, sport activities, social and cultural activities, student services and other activities.

A comparison of the total expenditures on each type of these activities over a period of time can give us an indication on the MOE policy toward these activities, and whether this policy is participating the achievement of the Ministry's goals and objectives. For example, we should see that the proportion of the expenditure in each of these activities should comply with the priorities that MOE with regard to these activities. In other words, if the policy makers in MOE believe that the cultural and social activities should be given priority over other activities, then we should expect that the expenditure on this sub-program is relatively higher than others.

4.6.5 Corporate Support

All other costs that are not assigned to a particular program are accumulated under this program. However, it is important to note that the above mentioned programs are the only and all programs that are relevant to MOE and to the educational system, rather this was only an initial step just to provide the framework of developing a program structure for MOE. Therefore, some of the above mentioned programmes could be deleted and others are added depending on the needs of the policy makers and planners in MOE.

CHAPTER

FIVE

Chapter Five

APPLICATION OF THE PROPOSED SYSTEM

5.1 INTRODUCTION

Although there are five different programs in the proposed budgeting system outlined in Chapter Four, the application of the proposed system will be limited only to the most important program, namely, the "Schools Education" program because of the following reasons:

- a. The largest share of MOE recurrent expenditure is devoted to the Schools Education program. For instance, in the years 1988, 1989 and 1990 the Schools Education Costs as a percentage of the MOE total recurrent expenditure was 83.5%, 75%, and 84% respectively.
- b. The necessary data needed to calculate the total expenditure and performance evaluation of the other proposed programs are either not available or difficult to obtain. However, MOE will be able to apply the proposed programs since the expenditure data will be directly posted from the payment vouchers, after they are processed by MOFNE, to the relevant program budget classification code. For example, when MOFNE passes a payment voucher related to the scholarship expenses of a teacher in MOE who is on a scholarship to study MBA in University of Bahrain, then, the Finance Section at MOE will charge this expenditure to the budget code number 020203 (i.e Program : High Education; Sub-Program: Academic staff scholarship; and Element : MBA studies) under the proposed budget system.

5.2 THE BASIS FOR THE CALCULATION OF THE SCHOOLS EDUCATION COSTS

Exhibit 5.1 shows the MOE actual recurrent expenditure by Directorate and Chapter for the years 1988, 1989 and 1990. The expenditure data have been extracted from MOFNE year-end reports sent to MOE. However, to calculate the costs incurred by MOE which are directly related to the schools (i.e. Schools Education Costs), it was necessary to go through the expenses incurred by the various directorates in MOE and analyse them; in some cases allocation basis was also used. The result of these analyses and reallocation are summarised in the Exhibit 5.2 which shows the "Schools Education Program" recurrent expenditure costs for years 1988 to 1990. The following paragraphs state the basis for the calculation and allocation of the schools education costs by type of expenditure (i.e. Chapters):

5.2.1 Manpower expenditure

The total manpower expenditure for the primary education level includes the expenditures incurred by both the Primary Education Directorate and the Vocational Education. The expenditures incurred by the latter have been added because they are related to the "class room teacher program" implemented in the primary schools.

The total manpower expenditure for Intermediate and Secondary education levels were calculated by referring to the relevant code of accounts in the General Ledger of MOFNE. That is, the intermediate education level expenditure are charged under account code number 214302 (i.e Intermediate Education) and the Secondary Education level expenditure are charged under the accounts code numbers 214303, 214304, and 214306 (i.e General Secondary schools, Commercial schools, and Technical schools respectively).

**EXHIBIT 5.1 : MINISTRY OF EDUCATION ACTUAL RECURRENT EXPENDITURE
BY DIRECTORATE AND CHAPTER FOR THE YEARS 1988 TO 1990 (BD'000)**

NO	PROGRAM DESCRIPTION	1990							1989							1988						
		CHAP 1	CHAP 2	CHAP 3	CHAP 4	CHAP 5	CHAP 7	TOTAL	CHAP 1	CHAP 2	CHAP 3	CHAP 4	CHAP 5	CHAP 7	TOTAL	CHAP 1	CHAP 2	CHAP 3	CHAP 4	CHAP 5	CHAP 7	TOTAL
1	MINISTER'S OFFICE	91	4		2		3	100	86	7	2	2		1	96	80	5	1	2			88
2	UNDERSECRETARY OFFICE	63	4					67	34	8					42	53	1		2			54
3	PUBLIC REL. & EDUC. ACTIV.	216	87	13	1			317	203	108	9	5			325	199	45	5	3			352
4	SCHOLARSHIP & CULT. AFFAIRS	358	1,489	25	17	8		1,897	362	1,202	25	21	8		1,618	318	1,262	19	42	7		1,644
5	PUBLIC LIBRARIES	305	6	27	10			348	280	9	32	14			335	284	5	16	2			307
6	TOTAL FOR HEADQUARTERS	1,053	1,593	55	30	8	3	2,743	983	1,334	68	44	8	1	2,444	934	1,318	41	51	7	1	2,352
7	AUS OF ADMINISTRATION	35						35	37						38	38	1					39
8	PERSONNEL AFFAIRS DIR.	304	4	18	4			330	322	3	2	39			366	290	2	1	5			298
9	FIN. & BUDGET AFFAIRS DIR.	413	66	147	15			641	391	72	183	33			676	391	105	94	17			607
10	GENERAL SERVICES DIR.	807	2,336	67	168	305		3,623	762	2,074	67	159	235		3,297	729	1,646	58	120	300		2,853
11	VOCATIONAL EDUCATION	733	422	42	150			1,347	835	429	80	143			1,487	768	285	53	101	9		1,216
12	TOTAL FOR ADMIN. & FIN. AFF.	2,292	3,828	274	337	305	0	6,736	2,347	2,578	332	375	235	0	5,567	2,216	2,039	206	243	309	0	5,013
13	AUS OFF. PLAN. & EDUC. AFF.	33	5					38	37	30		2			67	47	1					48
14	PLAN. & PROG. DIRECTORATE	108	11	74	300			493	93	18	136	663			910	95	73	54	313			535
15	EDUCATIONAL INF. CENTRE	179	88	9	3	14		293	159	66	6	11	21		363	148	73	5	31	12		390
16	RESEARCH & DEV. CENTRE	117	2					119	132	2		2			136	4	7		3			14
17	TOTAL FOR EDUC. PLANS AFF.	437	106	83	303	14	0	943	421	116	142	678	21	0	1,378	294	154	59	347	12	0	864
18	AUS OFF. GEN. & TECH. EDUC.	36	76					112	40	286		2			324	44						45
19	PRIMARY EDUCATIONAL DIR.	17,688	220	1	94			18,003	16,920	207		134			17,361	16,171	286		115			16,572
20	INTERMED. & SECOND. EDUC. DIR.	25,522	836	113	336	41		26,848	23,578	772	144	471	35		25,000	22,169	656	87	372	33		23,317
21	ADULT EDUC. DIRECTORATE	543	16					559	567	10		3			580	578	10		1			589
22	PRIVATE EDUC. DIRECTORATE	181	1					182	162	2	2	1			187	153			1			154
23	SCOUT, SPORT & STUD. SERV.	388	36	84	5			513	370	42	120	26			538	374	39	65	23			501
24	TOTAL FOR GEN. & TECH. EDUC.	24,358	1,182	198	433	41	0	26,211	41,837	1,319	266	437	35	0	43,864	39,489	991	152	513	33	0	41,776
25	AUS OFF. CURRICULUM & TRAIN	29	198					227	28	228		2			256	28						28
26	TRAINING DIRECTORATE	512	15	2	1			530	423	8	3	2			436	146	10	1	1			154
27	CURRICULUM DIRECTORATE	1,654	952	625	46			3,277	1,550	619	622	98			2,889	1,370	588	520	84			2,462
28	EDUC. AIDS DIRECTORATE	144	1	121	184	14		450	131	1	150	178	19		479	123	127	101	7			354
29	UNESCO COMMITTEE	14	185					199	13	170	1				184	10	142	1				153
30	ADULT EDUC. TRAINING CENTRE	12						12	14						14	23			1			24
31	TOTAL FOR CURRIC. & TRAIN.	2,363	1,351	748	231	14	0	4,703	2,159	1,084	776	240	19	0	4,369	1,700	867	623	93	0	0	3,283
32	GRAND TOTAL FOR MOE	35,053	1,502	1,304	1,336	363	3	40,658	47,549	8,373	1,386	2,414	318	1	57,699	44,433	5,569	1,081	1,247	361	1	52,492

Sources of data : MOFNE General Ledger Accounts for the years 1988 to 1990

**EXHIBIT 5.2 : "SCHOOLS EDUCATION PROGRAM" RECURRENT
EXPENDITURE FOR YEARS 1988 TO 1990 (BD'000)**

BUDGET CLASSIFICATION CODE			PROGRAM DESCRIPTION	1990	1989	1988
PROG.	SUB-PROG.	ELEMENT				
01			* SCHOOLS EDUCATION	50,970	47,053	44,008
01	01		** PRIMARY EDUCATION LEVEL	22,353	20,760	19,295
01	01	01	*** MANPOWER EXPENDITURE	19,035	18,407	17,389
01	01	02	*** SERVICES EXPENDITURE	2,392	1,674	1,497
01	01	03	*** CONSUMABLES EXPENDITURE	412	351	275
01	01	04	*** FIXED ASSETS EXPENDITURE	457	300	115
01	01	05	*** MAINTENANCE EXPENDITURE	57	28	19
01	01	06	*** OTHER EXPENDITURE	-	-	-
01	02		** INTERMEDIATE EDUCATION LEVEL	14,148	13,151	12,144
01	02	01	*** MANPOWER EXPENDITURE	12,729	11,705	10,819
01	02	02	*** SERVICES EXPENDITURE	1,123	611	768
01	02	03	*** CONSUMABLES EXPENDITURE	198	289	213
01	02	04	*** FIXED ASSETS EXPENDITURE	75	535	337
01	02	05	*** MAINTENANCE EXPENDITURE	23	11	7
01	02	06	*** OTHER EXPENDITURE	-	-	-
01	03		** SECONDARY EDUCATION LEVEL	14,469	13,142	12,569
01	03	01	*** MANPOWER EXPENDITURE	12,746	11,811	11,262
01	03	02	*** SERVICES EXPENDITURE	979	512	693
01	03	03	*** CONSUMABLES EXPENDITURE	255	315	186
01	03	04	*** FIXED ASSETS EXPENDITURE	390	437	389
01	03	05	*** MAINTENANCE EXPENDITURE	99	67	39
01	03	06	*** OTHER EXPENDITURE	-	-	-

The above calculation bases has been applied to all other expenditure types related to the three Directorates mentioned above (i.e. Primary Education, Intermediate and Secondary Education, and Vocational Education). Therefore, in the remainder of this section we will discuss only the calculation and allocation basis of the expenditures incurred by other Directorates in MOE which are directly related to the Schools (note that this was one of the major weaknesses in the current budget system discussed in Chapter Three).

5.2.2 Services Expenditure

Services expenditure incurred by other Directorates which are directly related to the schools education included the telephone installation and usage charges; electricity, water and Municipality; desalted and asterian water; school buses and vehicles rents; and printing of school books. These costs were charged under the budget codes of the General Services Directorate and the Curriculum Directorate.

The total services expenditure directly related to the schools education are allocated to the educational levels according to the number of students in each level.

5.2.3 Consumables Expenditure

Consumables expenditure incurred by other Directorates which are directly related to the schools education included the utensils and misc. light equipments, purchase of books for students, purchase of books for the school libraries, purchase of maps and posters, purchase of stationery, and consumable items for the new schools. These costs were charged under the budget codes of the Curriculum Directorate and the Educational Aids Directorate.

Except for the stationery and other consumable items for the new schools, all other consumable expenditure are allocated to the three education levels according to the number of students (utensils and misc. light equipment cost is allocated only to the intermediate and secondary education levels). Stationery costs, which are mainly used by the teachers, are allocated according to the number of teachers in each education level. Finally, the cost of the consumable items for the new schools are allocated according to the number of new schools opened during the year for each level of education.

5.2.4 Fixed Assets Expenditure

The cost of purchasing fixed assets for the schools which are charged under other Directorates budget codes included machinery and instruments, T.V. equipments, broadcasting equipments and furniture for the new schools. These costs were charged under the budget codes of the Curriculum Directorate, Educational Aids Directorate, and the Planning and Programming Directorate.

All the above mentioned expenditure, except for the furniture for the new schools, are allocated to the Secondary education level because these assets are mainly used in secondary schools (indeed, they were not very significant, the largest amount was in 1990 - BD 53,000 approximately). The cost of purchasing furniture to the new schools is allocated according to the number of schools opened during the year in each level.

5.2.6 Maintenance Expenditure

The school building maintenance costs are charged to the projects costs, and therefore, not covered in this research. However, there are other school main-

CHAPTER FIVE : APPLICATION OF THE PROPOSED SYSTEM

- 128 -

tenance costs that are charged to the budget code of General Services Directorate. These include the air conditioning and heating equipment maintenance costs. and the machinery and instruments maintenance costs. The former costs are all allocated to the Secondary Schools, and the latter costs are allocated according to the number of classes in each level of education.

5.3. MEASUREMENT OF EFFECTIVENESS

The proposed "Schools Education" program will facilitate the computation of effectiveness measures for MOE schools according to the level of Education (i.e. primary, Intermediate, and Secondary) and type of expenditure (i.e. manpower, services, consumables, fixed assets, and maintenance).

The figures extracted from the "basis for the calculation of the schools education costs" mentioned in section 5.2 above will be used to compute educational system indicators presented in section 5.4 to 5.6.

These indications are computed for a period of three years (1988 to 1990). Despite the fact that this period is relatively insufficient for reaching a reasonable conclusion regarding the trends in those ratios, the computed ratios are intended to illustrate how the proposed system would produce data that can be used to evaluate the effectiveness of the MOE educational budgetary process. Furthermore emphasis will be put on the process ratios because of their special importance in the proposed system.

5.4. INPUT INDICATORS

Summary of the input indicators data and ratios calculated for the government educational system is shown in Exhibit 5.3. The following comments are related to those computed ratios:

5.4.1 Percentage of educational expenditure to GNP

As indicated in the previous chapter, this ratio is designed to measure the financial commitment and emphasis made by the government on the public education system.

From the year 1988 to the year 1990 the total recurrent expenditure of MOE increased by 15% which was lower than the percentage increase in GNP (i.e. 22%) for the same period. Accordingly, the percentage ratio of the educational expenditure to GNP has fallen from 4.81% in 1988 to 4.53% in 1990.

This shows that the Government commitment to educational expenses was not as strong in 1990 as it was in 1989 and 1988.

5.4.2 Percentage of Educational Expenditure to Government Expenditure

As indicated in the previous chapter, this ratio is designed to measure the variation of the government efforts toward the educational activities expenditure as opposed to other government establishment expenditures.

Total recurrent expenditure of MOE showed an upward trend and it has increased by almost 10% in 1989 and almost 5% in 1990. However, the total government

**EXHIBIT 5.3 : MOE INPUT INDICATORS DATA AND RATIOS FOR
THE YEARS 1988 TO 1990**

DESCRIPTION	1990	1989	1988
A) INPUT INDICATORS DATA			
* MOE TOTAL RECURRENT EXPENDITURE (BD'000) !	60634	57839	52692
* GROSS NATIONAL PRODUCT (BD'MILLION) #	1339	1248	1095
* TOTAL GOVERNMENT EXPENDITURE (BD'000) !	536648	495962	713824
* GOVERNMENT EXP. ON SOCIAL SECTOR (BD'000) !	126276	120666	159471
* TOTAL PROJECTED POPULATION ~	503022	488545	473296
B) INPUT INDICATORS RATIOS			
* % OF EDUCATIONAL EXPENDITURE TO GNP	4.53	4.63	4.81
* % OF EDUC. EXPENDITURE TO GOVERNMENT EXP.	11.29	11.66	7.38
* % OF EDUC. EXPENDITURE TO SOCIAL SECTOR EXP.	48.02	47.93	33.04
* EDUCATION EXPENDITURE PER CAPITA (BD)	120	118	111

Sources of data :

! MOFNE General Ledger accounts

Directorate of Evaluation &

Economic Research at MOFNE

~ Statistical Abstracts (1987 - 1989)

expenditure showed a sharp decrease in 1989 (30%) and a reasonable increase in 1990 (8%). Those fluctuation contributed to the fluctuation in the ratio of educational expenditure to the government expenditure.

5.4.3 Percentage of Educational Expenditure to Social Sector Expenditure

As indicated in the previous chapter, this ratio is designed to measure the variation of the government efforts toward the educational activities expenditure as opposed to the expenditure on other social sector activities like health and social affairs.

The decrease in the government expenditure on the Social Sector in 1989 by approximately 24% was a result of the decrease in the total government expenditure in that year. However, the rate of expenditure on this sector has increased in 1990 by approximately 5%, which was also as a consequence to the increase in the government total expenditure in that year.

Although the Social sector expenditure fluctuated, the government relative expenditure on the educational system increased. This shows the emphasis that the government devotes to the education sector.

5.4.4 Education Expenditure Per Capita

The per capita education expenditure has increased in 1989 by approximately 6% and in 1990 by approximately 2%. On the other hand, the percentage increase in the projected population was about 3% in both years. Therefore, the increase in the education BD expenditure per capital from BD 111 in 1988 to BD 120 in 1990 (i.e. by approximately 8%) is mainly due to the fact that the percentage increase in educational expenditure was more than the percentage increase in the projected number of population for the same period.

5.4.5 Conclusion

It is important to take into consideration the relationship between all the above mentioned input indicators in assessing the adequacy of the financial effort of the government on the development and improvement of the educational programs of Bahrain. Accordingly, although the first indicator showed a decrease in the ratio of educational expenditure to GNP, however, the other three indicators showed that, in general terms, the government has committed resources to improve the level of expenditure on education to match with the continuing improvements in the educational programs and curricula.

5.5. PROCESS INDICATORS

Summary of the process indicators data and ratios calculated for the government educational system is shown in Exhibit 5.4. The following are some comments on these data and ratios:

5.5.1 Distribution of Schools Education Costs by Type of Expenditure

As indicated in the previous chapter, these ratios are designed to show the emphasis that MOE is giving to each type of expenditure.

During the period from 1988 to 1990, MOE manpower expenditure represented about 87% of the total schools education costs. The manpower expenditure amount increased by approximately 6% per year. Because of its significant nature, this expenditure needs to be managed effectively in a manner that leads to a better utilisation of the academic staff.

5.5.2 Distribution of Schools Education Costs by Level of Education

As indicated in the previous chapter, these ratios are designed to measure the distribution of the expenditure as incurred by each level of education.

Exhibit 5.4 shows that the largest portion of the schools education costs are incurred by the primary schools. This observation appears to be normal since more than 40% of the government schools students are in the primary level and more than 54% of the government schools teachers are teaching in the primary schools.

On the other hand, there is an abnormal trend in the distribution of the schools

**EXHIBIT 5.4 : MOE PROCESS INDICATORS DATA AND RATIOS
FOR THE YEARS 1988 TO 1990**

DESCRIPTION		1990	1989	1988
A)	PROCESS INDICATORS DATA			
	* SCHOOLS EDUCATION COSTS (BD'000)	50970	47053	44008
	* SCHOOLS MANPOWER EXPENDITURE (BD'000)	44510	41923	39470
	* SCHOOLS OTHER EXPENDITURE (BD'000)	6460	5130	4538
	* EXPENDITURE ON PRIMARY EDUC. LEVEL (BD'000)	22353	20760	19295
	* EXPENDITURE ON INTERMEDIATE EDUC. LEVEL (BD'000)	14148	13151	12144
	* EXPENDITURE ON SECONDARY EDUC. LEVEL (BD'000)	14469	13142	12569
	* TOTAL NUMBER OF STUDENTS IN GOVERNMENT SCHOOLS	97598	92862	90734
	* TOTAL NUMBER OF STUDENTS IN PRIMARY LEVEL	56155	54769	53675
	* TOTAL NUMBER OF STUDENTS IN INTERMEDIATE LEVEL	23180	21584	21211
	* TOTAL NUMBER OF STUDENTS IN SECONDARY LEVEL	18263	16509	15848
	* TOTAL NUMBER OF TEACHERS IN GOVERNMENT SCHOOLS	5679	5368	5157
	* TOTAL NUMBER OF TEACHERS IN PRIMARY LEVEL	3027	2882	2887
	* TOTAL NUMBER OF TEACHERS IN INTERMEDIATE LEVEL	1023	912	781
	* TOTAL NUMBER OF TEACHERS IN SECONDARY LEVEL	1629	1574	1489
B)	PROCESS INDICATORS RATIOS			
	1. DISTRIBUTION OF SCHOOLS EDUCATION COSTS BY TYPE (%)			
	a. MANPOWER EXPENDITURE	87.33	89.09	89.69
	b. OTHER EXPENDITURES	12.67	10.89	10.31
	2. DISTRIBUTION OF SCHOOLS EDUCATION COSTS BY LEVEL OF EDUC.(%)			
	a. PRIMARY LEVEL	43.86	44.12	43.84
	b. INTERMEDIATE LEVEL	27.76	27.95	27.59
	c. SECONDARY LEVEL	28.39	27.93	28.56
	3. AVERAGE COST PER STUDENT IN GOVERNMENT SCHOOLS (BD)	522	507	485
	4. AVERAGE COST PER STUDENT BY LEVEL OF EDUCATION (BD)			
	a. PRIMARY LEVEL	398	379	359
	b. INTERMEDIATE LEVEL	610	609	573
	c. SECONDARY LEVEL	792	796	793
	5. TEACHER UTILISATION RATIO IN GOVERNMENT SCHOOLS (EACH) (i.e STUDENT-TEACHER RATIO)	17	17	18
	6. TEACHER UTILISATION RATIO BY LEVEL OF EDUCATION (EACH)			
	a. PRIMARY LEVEL	19	19	19
	b. INTERMEDIATE LEVEL	23	24	27
	c. SECONDARY LEVEL	11	11	11

direct cost between the Intermediate and Secondary level of education. The indicator shows that the schools direct costs distributed to these two levels is almost equal, whereas it was more reasonable to see a higher expenditure percentage in the secondary education because of the following reasons:

- a - The total number of teachers in the secondary level was twice as large the number of teachers in the intermediate level in 1988, 75% in 1989, and 59% in 1990.
- b - Generally, the average salary paid to a secondary school teacher is higher than that is paid to as intermediate school teacher.

5.5.3 Students Average Cost Indicators

As indicated in the previous chapter, these ratios are considered as the most important indicators that are used to measure the internal efficiency of the educational system in economic or financial term.

The average cost per student in the government schools has increased in 1989 by BD 22 (4.5%) and in 1990 by BD 15 (3%). The increase in the primary education level expenditure was 6% in 1989 and 5% in 1990.

The increase in the Intermediate education level expenditure was 6% in 1989 and almost the same in 1990.

On the other hand, the average cost per student in the secondary level was almost the same during the period 1988 - 1990.

Several factors contributed to the increase in the average cost per student in the primary level. Such increase was due in part to :

- a - The percentage increase in the number of students was less than the percentage increase in the level of expenditure.
- b - Increase in the level of other expenditures, specially maintenance expenditure (in 1990 the increase was almost 50%).

5.5.4 Teacher Utilisation Ratio

As indicated in the previous chapter, this ratio is used to measure the extent to which each educational level is utilising one of the most important resources in the educational system (i.e. the teacher).

Generally, there was no significant changes in the teacher utilisation ratios during the years 1988 to 1990. However the ratio in the Intermediate education level decreased by 15%.

Therefore factors such as the number of students per classroom, the number of hours in-class teaching per week and average weekly teaching load to the teacher should be reconsidered by MOE educational policy makers to improve the situation and enhance a more efficient use of the available educational resources.

5.6 OUTPUT INDICATORS

Summary of the output indicators data and ratios calculated for the government educational system is shown in Exhibit 5.5. The following are some comments on these data and ratios:

As indicated in the previous chapter, the cost per graduate data is used to appraise the efficiency of the educational system and to provide the policy makers with the necessary data for future planning and budgeting. The average cost per graduate in the secondary level is higher than the other two levels mainly because of the higher cost per student in this level during the period 1988 to 1990. On average, the cost per student for the period under research was BD 378, BD 597 and BD 794 in the primary, intermediate and secondary levels of education respectively.

On the other hand, although the average cost per student in the primary level (only BD 378) is much lower than the intermediate level (BD 597), however, the cost per graduate in the former level is higher than the latter by about 22% (BD 440 per student). This was mainly due to the fact that the average period of time taken by the primary level students to graduate is almost twice the period taken by the intermediate level students.

EXHIBIT 5.5 : OUTPUT INDICATORS DATA AND RATIOS

	DESCRIPTION	PERIOD
A)	OUTPUT INDICATORS DATA	1988-90
	* AVERAGE STUDY PERIOD IN GOVERNMENT SCHOOLS (YEARS)	13.14
	* AVERAGE STUDY PERIOD IN PRIMARY LEVEL (YEARS) #	6.54
	* AVERAGE STUDY PERIOD IN INTERMEDIATE LEVEL (YEARS) I	3.41
	* AVERAGE STUDY PERIOD IN SECONDARY LEVEL (YEARS) I	3.27
B)	OUTPUT RATIOS	
	1. AVERAGE COST PER GRADUATE IN GOVERNMENT SCHOOLS (BD)~	6631
	2. AVERAGE COST PER GRADUATE BY LEVEL OF EDUCATION (BD)~	
	a. PRIMARY LEVEL	2477
	b. INTERMEDIATE LEVEL	2037
	c. SECONDARY LEVEL	2595

Sources of data :

- # Period found by adding the average failure percentage rate in primary education level for the period from 1983 to 1989 extracted from the Statistical Abstracts by the normal length of the study (i.e 6 years)
- I Period found by adding the average failure percentage rate in the Intermediate and Secondary education level for the period from 1988 to 1990 extracted from the Statistical Abstracts by the normal length of the study (i.e 3 years)
- ~ The average cost per student taken from Exhibit 5.4

CHAPTER

SIX

Chapter Six

SUMMARY AND CONCLUSION

6.1 SUMMARY :

Natural resources are scarce and the need for these resources is growing. As a result, there is a need to utilise these resources in an efficient manner to achieve the government's social and economic goals and objectives. One of the most important resource management tools in the government is the budgetary process. However, the traditional budgetary system currently implemented in the government satisfies two objectives only; control and accountability. Therefore, there is a need to modify the current budgetary system to meet, in addition to control and accountability, other objectives such as efficiency and effectiveness.

In this paper the current traditional budgetary system, as applied by MOE, was evaluated. Further, an alternative budgetary system was discussed and evaluated, namely, PB. Finally, a proposed system was introduced and performance indicators were developed and applied to MOE expenditure for the years 1988, 1989, and 1990. The following paragraphs will summarise the topics discussed in this paper.

PB is defined as a management decision making system that ties together strategic and long-range planning with conventional budgeting and supporting analysis so that an organisation effectively assigns resources to achieve both its short and long-range objectives. PB is a budgetary system that focuses on the purposes of government activity, and the efficiency and effectiveness of that activity, rather than on the level of expenditure on certain items or inputs. It provides a budgetary framework for systematically reviewing the achievement of programs against their objectives as part of the funding process, and for attaining accountability of de-

partmental management for the ultimate result of the expenditure of the government unit.

A PB framework requires the fusion of strategic and long-range planning with budgeting process through the use of various structural, analytical and informational elements. A generalised PB system does not exist. Therefore, in applying PB to an organisation, managers must tailor it to the organisation's particular context and needs. However, there are several key processes and elements that are common to most PB systems.

The key processes of the PB are divided into three phases. First, the planning phase, which deals with the development of missions, goals, objectives and with the strategies and general resource allocations for achieving them over a long-range time frame expressed in a basic program structure. Strategic and long-range planning, developing of a program structure, developing of performance indicators and multiyear program forecasts are the main elements of this phase. Second, the programming phase, which deals with the more detailed application of resources (manpower, materials, facilities, and equipments) and schedules to plans and programs. Finally, the budgeting phase, where the final allocation of resources and more detailed reviews are made in a traditional line-item format to accomplish and control the approved programs for the first year of the plan.

The PB system includes key structural, analytical and informational elements in the process leading to a budget. The most important elements include, first; the issues analysis which is the continual conducting of key studies that are necessary to provide an analytical foundation for decisions made in a PB system. Second, the cross-walk reconciliation that is intended to connect the proposed program structure with an existing budget structure. By the use of a cross-walk, the information from the existing data base can first be allocated and programmed into the strategic program groupings more appropriate to policy making, and later

CHAPTER FIVE : APPLICATION OF THE PROPOSED SYSTEM

- 139 -

regrouped for implementation and control. Third, the charge analysis that is characterised as the lifeblood of PB because the handling of charge keeps a PB system alive and lively. Therefore, provisions should be established in the annual planning and budgeting process for necessary revisions that should include at least a definite review period in the planning phase and flexible procedures and time allowances through the budgeting phase. Fourth, an annual PB cycle (called annual calendar) must be established, with regular intervals for the planning, programming and budgeting phases. This is to allow sufficient time for analysis and decision making at levels of management. Fifth, emphasis on systematic analysis which is one of the outstanding features of PB. Systematic analyses must be performed to clarify the conceptual framework in which decisions are made, to define possible alternative objectives, and to explore the cost and effectiveness of alternative causes of action. Finally, the existence of an information system from which the PB system should derive its information. Therefore, the existing data base and accounting systems should provide information to the planning, programming, and budgeting phases in the PB structure hierarchy.

The advantages of PB includes First, it facilitates the identification of the need for co-ordinating mechanisms between various government activities. Second, it facilitates the measurement of the activities effectiveness. Third, PB can organize and improve data for decision making. Fourth, PB contributes to the improvement in the quality of budgetary decisions in the government. Finally, it encourages long-range planning.

On the other hand, there are disadvantages to PB. These include: First, practice shows that although many people know what PB should be like in general, but no one knows what it should be in any particular case (Wildvasky - 1970). Second, for the immediate future, PB is much less useful for comparisons among programs. Third, the difficulty to measure the output of some activities, for example, the service output in the government. Finally, in some cases, it is difficult to relate activities

to outputs, for example, revenue administration and research and development. Therefore, PB does not measure output as a true end product, i.e, it can not be related to specific output.

Besides the disadvantages as mentioned above, there are other factors that contributed to the failure of PB in the countries that implemented it. Those factors include the resistance of people for change, complexity of the program structures, absence of trained employees, policy trade-offs, and the difficulty of performance measurement.

There is a centralised control by MOFNE on the preparation and implementation of the State budget. This budget is standardly classified and it is divided into eight chapters according to the type of expenditure. This includes the manpower, services, consumables, fixed assets, maintenance, transfers, grants subsidies and repayment of loans interest, and the projects expenditure.

The government budget is put together incrementally and presented in traditional line item fashion. The purpose for this type of budgetary approach is to exercise control over the government fund and hold the concerned government unit accountable.

The disadvantages of the traditional budgetary approach include: First, short period of control over government expenditure. Second, the absence of the unit costs that could be used to evaluate performance. Third, weak priority mechanism. Fourth, the current budget classification code does not facilitate the calculation of the costs directly related to the education process and hence, performance evaluation.

On the other hand, the advantages of the traditional budgetary approach include: First, it closely parallels the lines of responsibility in the Ministries. Second, it makes

the budget calculation easy because it is not comprehensive. Third, choices that might cause conflict are fragmented. Fourth, it does not demand analysis of policy, neither, does it inhibit it. Finally, short-term budgeting aids economic adjustment through government monetary policy.

The ability of a budgetary form to score high on one criterion may increase the likelihood of its scoring low on another. Accordingly, there may well be no ideal mode of budgeting. If so, this is the question "Do we choose a budgetary process that does good on one criterion but terribly on others?" Or do we opt for a process that satisfies most of our demands from a budgetary process even though it does not score brilliantly on all of them? This is then what we hope that the proposed budgetary form will achieve.

The framework of the proposed budgetary system consists of five steps, namely, developing a mission, setting goals and objectives, crafting a strategy, developing performance measures, and building a program structure. Among those five steps, performance measurement received special attention.

The performance measurements have been divided into three categories. First, the input ratios which include the percentage of educational expenditure to GNP, percentage of educational expenditure to government expenditure, percentage of educational expenditure to social sector expenditure, and the education expenditure per capita. Second, the process indicators which include the distribution of schools education costs by type of expenditure, distribution of schools education costs by level of education, average cost per student by level of education, and the teacher utilisation ratios by level of education. Finally, the output ratios which include the average cost per graduate in the government schools by level of education.

The above mentioned ratios are computed for a period of three years (1988-1990). Despite the fact that this period is relatively insufficient for reaching a reasonable conclusion regarding the trends in these ratios, the computed ratios are intended

CHAPTER FIVE : APPLICATION OF THE PROPOSED SYSTEM

- 142 -

to illustrate how the proposed system would produce data that can be used to evaluate the effectiveness of the MOE educational budget.

6.2 CONCLUSION

The main purpose of this paper was to review the traditional budgeting as applied by MOE, and PB as applied in some other countries to come out with proposed budgetary reform for the MOE. A proposal that is intended to lead to a better utilisation of the scarce resources available to this Ministry in achieving its educational goals and objectives.

The main features of the proposed system is that it is a mixture of traditional budgeting and PB. Furthermore, the proposed system is designed in a manner that provides information necessary to facilitate the computation of effectiveness measures for the MOE.

The following major conclusions arising from this paper may be useful to different categories of analysts and specialists working in the field of educational planning, programming and budgeting:

1. The idea of "program structuring" discussed in the proposed system will strengthen the priority mechanism system as applied in MOE. In other words, the proposed system enables MOE policy makers to rank the various educational programs and activities according to their importance. This priority mechanism will facilitate a smoother linkage between planning, budget preparation, and budget execution and control. Furthermore, it facilitates a better use of the available scarce educational resources.
2. The proposed system introduced a number of performance indicators. Those indicators are widely known and can be used to measure the effectiveness of the educational system in the State of Bahrain.
3. The proposed system facilitates the use of cost and unit pricing analysis (e.g. cost per student and cost per graduate) to evaluate performance.

CHAPTER FIVE : APPLICATION OF THE PROPOSED SYSTEM

- 144 -

These data are considered as important data components that should be incorporated in the budgetary decision making process and the educational planning process.

4. The proposed system encourages other Ministries and Governmental Directorates, specially those under the Social Sector, to conduct a budgetary reform.
5. The process indicators developed by the proposed system are considered as a good tool for efficiency measurement of the educational activities.

Finally, it is important to emphasise that the list of performance indicators discussed in this paper is not the only first available educational effectiveness measurement. Accordingly, more research and development should be undertaken by the concerned parties in the educational system to further analyse these sets of indicators and to provide evidence to justify the adding to or deleting from the components in each set (i.e. input, process, and output).

BIBLIOGRAPHY

BIBLIOGRAPHY

Al-Shaikh N., Educational Expenditure for the Academic year 1987/88 : A Proposal for Reorganizing of Educational Budget, Financial Planning & Programming Directorate, State of Bahrain 1991.

Banks T., Performance Measurement : The Needs of Managers and Policy Makers, Public Money & Management, volume 10, No. 2, Summer 1990, (p.p. 47-49).

Beiner C.S, Budgeting in Not-for-profit Organizations, CMA magazine, November - December 1987, (p.p. 20-27).

Bovarid T., Gregory D., and Martin S., Performance Measurement in Urbun Economic Development, Public Money & Management, volume 8, No. 4, Winter 1988, (p.p. 17-22).

Bureau of the Budget, Special Analysis of the Budget of United State, Washington, 1971.

Burkhead J., Government Budgeting, Wiley, New York, 1956, (p.p. 136-138).

Carley M., Beyond Performance Measurement in a Professional Public Service, Public Money & Management, volume 8, No. 4, Winter 1988, (p.p. 23-27).

Cave M. and Hanney S., Performance Measurement in Higher Education, Public Money & Management, Spring 1989, (p.p. 13-17).

Cave E., Consumerism in Education, Public Money & Management, volume 9, No. 1 Spring 1989, (p.p. 29-33).

Coombs P. and Hallak J., Educational Cost Analysis In Action : Case Studies for Planners, UNESCO, Paris 1972.

Coombs H. and Jenkins D., Public Sector Financial Management, Chapmon & Hall, 1991.

Dean P.N., Performance Budgeting in Srilanka, Public Budgeting and Finance, Summer 1986, (p.p. 63-75).

Department of Finance in Australia, Program Budgeting Issues : What is Program Budgeting, July 1985.

Department of Finance in Australia, Program Budgeting Issues : Attribution of Indicator Costs, June 1986.

Department of Finance in Australia, Program Budgeting Issues : Role of the Program Structure, September 1985.

Department of Finance in Australia, Program Budgeting Issues : Central Information Systems, July 1985.

Department of Finance in Australia, Program Budgeting Issues : Indicators of Performance, July 1985.

Department of Finance in Australia, Program Budgeting Issues : Program Budgeting Implementation Checklist, September 1985.

Department of Finance in Australia, Program Budgeting Issues : Program Budgeting and Audit, May 1986.

Department of Finance in Australia, Program Budgeting Issues : Preparing a Program Statement, July 1985.

Department of Finance in Australia, Program Budgeting Issues : Development of the Program Structure, July 1985.

Directorate of Statistics, Statistical Abstract 1987, CSO, State of Bahrain, 1988.

Directorate of Statistics, Statistical Abstract 1988, CSO, State of Bahrain, 1989.

Directorate of Statistics, Statistical Abstract 1989, CSO, State of Bahrain, 1990.

Flynn A. and Gray A., Making Indicators Perform, Public Money & Management, volume 8, No. 4, Winter 1988, (p.p. 35-41).

Glenneister H. and Low W., Changed Climate for Education Managers, Public Money & management, volume 9, No. 1, Spring 1989, (p.p. 17-23).

Gowan L., Program Budgeting : The First Year Down a Long Road, The Australian Accountant, November 1985, (p.p. 43-47).

Hay L., Accounting for Governmental and Non-profit Entities, seventh edition, Irwin, 1985.

Hitch C., The Economics of Defense in the Nuclear Age, Harvard University Press, USA, 1960, (21-39).

Holtham C., Developing a System for Measuring Departmental Performance, Public Money & Management, volume 8, No. 4, Winter 1988, (p.p. 29-33).

IMF, Budgetary and Accounting Systems in GCC Member States, IMP report, USA, 1986.

Jackson P., The Management of Performance in the Public Sector, Public Money & Management, volume 8, No. 4, Winter 1988, (p.p. 11-15).

Johnstone J., Indicators of Educational Systems, UNESCO, Paris, 1991.

Key V., Auditing Local Financial Management in Schools, Public Finance and Accountancy, 16 June 1989, (p.p. 7-9).

Lavacic R., Schools and the Management of Public Money, Public Money & management, Autumn 1988, (p.p. 53-56).

Lewis B. Verne, Reflections on Budget Systems, Public Budgeting and Finance, Spring 1988, (p.p. 4-19).

MOFNE, Year End General Ledger Reports, State of Bahrain, 1989.

MOFNE, Year End General Ledger Reports, State of Bahrain, 1988.

MOFNE, Budgeting Procedures : State Budget Standard Classification, issue No. As:7-A2/12/88, 1988.

MOFNE, Year End General Ledger Reports, State of Bahrain, 1990.

Mundt M., Olsen R., and Steiberg H., Managing Public Resources, Peat Marwick International, USA, 1982.

Naismith D., Local Management of Schools : The Road to Privatization, Public Money & Management, Volume 8, No. 1&2, Spring-Summer, 1988, (p.p. 91-94).

Novick D., The Department of Defense, USA, 1965, (p.p. 81-91).

Plannig and Programming Directorate - MOE , Ministry of Education Educational Plan for the period 1989/90 to 1994/95 , Al Hashimi Printing Press , State of Bahrain , 1990.

Pollitt C., Performance Indicators in the Longer Term, Public Money & Management, volume 9, No. 3, Autumn 1989, (p.p. 51-54)

Port J., Developed Budgeting, Public Finance and Accountancy, 9 February 1990, (p.p. 11-13).

Port J. and Bunke J., Why Higher Education Must Learn its ABC, Public Finance and Accountancy, 15 September 1989, (p.p. 12-13).

Premchard A., Government Budgeting and Expenditure Controls : Theory and Practice, Second Edition, International Monetary Fund, March 1984.

Sandahl R., The Role of Program Results Evaluation in the Recently Revised Swedish Budget Process, International Journal of Government Auditing, April 1990, (p.p. 6-8).

Sweeny A. and Rachlin R., Hand book of Budgeting, John Wiley & Sons Inc., 1981.

The State Ministry for Legal Affairs, Las and Regulations Issued in the State of Bahrain during the period 1970-79, volume 1, Government Printing Press, State of Bahrain, 1980.

Thompson Q. and Parison N., Management of Change in Education, Public Money & Management, volume 9, No. 1, Spring 1989, (p.p. 25-28).

Vasudivan M., Criteria and Methods for Educational Research Reform and Planning, Vantage Press Inc., New York, 1976.

Wildvasky A., Budgeting: A Companative Theory of Budgetary Process, Revised Edition, Transaction Inc., USA, 1986.

Wildvasky A., Budgeting: A Companative Theory of Budgeting Process, Little Brown and Company Inc., USA, 1975.

Willis M.P., Portfolio Program Estimates 1990-91, Australian Government Publishing Service, Canbera, 1990.

Zavelberg H., Performance Auditing in the Federal Republic of Germany, International Journal of Government Auditing, October 1990, (p.p. 5-7).

APPENDICES

APPENDIX

(1)

APPENDIX 1

LAW NO. 1 FOR THE YEAR 1975 WITH RESPECT TO DETERMINING THE FINANCIAL YEAR AND THE RULES FOR THE PREPARATION OF THE STATE BUDGET AND THE CONTROL OF THE IMPLEMENTATION THEREOF AND THE FINAL ACCOUNT.

We, Isa bin Salman Al Khalifa, Amir of the State of Bahrain, after referring to Articles 90, 91, 92, 93, 94, 95 and 96 of the Constitution, and after this Law has been approved by the National Assembly, hereby give our approval and assent to the provisions thereof:

PART ONE

GENERAL PROVISIONS

Article 1

The State Budget shall include all estimated revenues and expenditures of the State ministries and directorates during the specific financial year.

Article 2

The State Budget shall comprise the main budget, supplementary budgets and the additional budgets. The supplementary and additional budgets shall be issued by special laws and they shall be subject to the provisions of this Law.

Article 3

The financial year of the State Budget consists of twelve months starting from the first day of January and ending on the thirty-first day of December of each year.

Article 4

The Minister of Finance and National Economy shall determine the formula of ministries and Government directorates budgets. He shall determine the formula of budgets for certain Government departments undertaking particular activities without being independent entities. A law shall be issued determining these departments and their respective budgets will be appended to those of ministries and Government directorates.

Modern methods in preparing the State Budget and requirements of economic and social development plans shall be noted in determining the formula, parts and contents of the State Budget.

PART TWO

CHAPTER ONE: PREPARATION OF THE BUDGET

SECTION ONE: ESTIMATES OF REVENUES

Article 5

Ministries and Government directorates shall prepare the initial revenue estimates in accordance with instructions to be issued by the Minister of Finance and National Economy, and the Ministry of Finance and National Economy shall be advised of these estimates within a period of time to be determined by the latter. Should a Government department fail to meet this deadline, the Ministry of Finance and National Economy shall estimate these revenues on the basis of the budget for the current year taking into consideration the factors or circumstances that may have effects on the said estimate.

Article 6

The Ministry of Finance and National Economy shall check the initial revenue

estimates mentioned in the previous article and it shall prepare the final revenue estimates.

Article 7

The estimates shall include the total gross revenues divided into its various categories and collection expenses shall be included in the expenditure estimates.

Article 8

A certain percentage, to be determined in the main budget each year, may be deducted from the total of the revenue estimates and added to the Reserve Fund. Net revenues earned from investment shall also be added to the Reserve Fund.

Article 9

The Budget Law may not include any stipulation that may imply the introduction of a new tax or an increase in an existing tax or an amendment to an existing law or resulting in a failure to issue a law required to be issued under the provisions of the Constitution.

SECTION TWO: ESTIMATE OF EXPENDITURE

Article 10

Ministries and Government directorates shall prepare estimates for their expenditures which should be accompanied by the necessary documents, statistics and explanatory notes verifying each of the required allocations in the budget. These estimates shall be presented to the Ministry of Finance and National Economy within a period of time to be determined by this Ministry and they shall indicate expenditures divided into its various categories, in accordance with instructions

to be issued by the Minister of Finance and National Economy.

Article 11

Should a ministry discover when preparing the proposed budget expenditure that certain works pertaining to another ministry have been included, the former ministry shall advise the latter accordingly in sufficient time for the ministry concerned to include the appropriate financial allocations in the proposed budget.

Article 12

Should a ministry or Government directorate fail to submit the estimate of expenditure within the set period of time, the Ministry of Finance and National Economy shall, after notifying the ministry concerned, undertake the estimation of expenditures on the basis of this ministry's budget for the current year taking into consideration the amendments introduced during the year and other circumstances pertaining to the said ministry or directorate.

Article 13

The Ministry of Finance and National Economy shall discuss with each ministry or directorate, its expenditure estimates. As for allocations for wages, they shall be first sent to the Personnel Affairs Department for an in-depth discussion thereof with the ministries concerned.

Should a dispute arise between the Personnel Affairs Department and any ministry, it shall be referred to the Minister of Finance and National Economy for his arbitration after consultation with the minister concerned.

When expenditures for all ministries have been approved by the Finance Directorate

at the Ministry of Finance and National Economy, it shall prepare, in accordance with the afore-mentioned provisions, the proposed main budget comprising the approved revenues and expenditures for submission to the Minister of Finance and National Economy.

CHAPTER TWO: APPROVING THE STATE BUDGET AND ISSUING A LAW IN RESPECT THERETO

Article 14

The Minister of Finance and National Economy shall prepare the draft budget and he shall also prepare a statement in respect of the financial and economic position of the State and arrangements made for the implementation of current budget allocations and the effect that this might have on the draft of the new budget.

Article 15

The Minister of Finance and National Economy shall submit the draft budget accompanied by the statement mentioned in the previous article to the Council of Ministers for approval thereof and it should be approved within a period of time that allows it to be referred to the National Assembly at least two months before the end of the financial year.

Article 16

The discussion of the Budget at the National Assembly shall be on a section by section basis, and no part of the State revenues may be allocated for any kind of expenditure except by law.

Article 17

The State Budget shall be issued by law.

Article 18

If the Law concerning the Budget was not issued before the beginning of the financial year, the previous budget shall continue to be in force until the Law is issued and collection of revenues and disposal of expenditure shall be effected in accordance with laws applicable at the end of the said year.

If certain sections of the Budget were approved by the National Assembly, they shall be enacted. The Ministry of Finance and National Economy shall issue instructions to the various ministries in respect of what sections of the previous Budget may continue to be in force in accordance with the previous paragraphs and the parts of the new Budget approved by the National Assembly which are to be enacted.

Article 19

The Minister of Finance and National Economy shall serve notice of the Budget Law after it has been issued, to the departments concerned for implementation.

CHAPTER THREE: IMPLEMENTATION OF THE BUDGET AND THE CONTROL THEREOF

SECTION ONE: PROVISIONS CONCERNING THE IMPLEMENTATION OF THE BUDGET

Article 20

The Minister of Finance and National Economy shall issue instructions concerning

the implementation of the Budget to ensure that this implementation conforms with the provisions of laws and regulations in operation. These instructions shall be advised to the departments concerned at the time of advising the Budget Law.

Article 21

Financial transactions between the various Government departments shall be settled in accordance with the instructions issued by the Minister for Finance and National Economy.

Article 22

Revenues collected by ministries and Government directorates shall be passed to the Ministry of Finance and National Economy in accordance with the instructions issued by the Minister of Finance and National Economy.

Article 23

The existence of an allocation in the Budget may not serve as a waiver for any of the provisions of the laws, regulations and orders which have come into operation with respect to utilising the said allocation or the implementation of the instructions attached to the Budget Law or its tables.

Article 24

Any expenditure not included in the Budget or in excess of the estimates appearing therein must be effected by law. This provision also applies to the transfer of funds from one category of the Budget to another.

Article 25

The number of posts appearing in the State Budget or the salary scale attached thereto may not be amended except by law. Also, no employee shall be recruited on account of a surplus in the allocation for salaries and wages.

Article 26

No Government department may exceed a specific appropriation for any expenditure except to the extent of the presence of a corresponding surplus in the appropriation of another expenditure in the same category. The Minister of Finance and National Economy shall determine the terms and conditions for effecting such transfer.

Article 27

No Government department may request additional allocations unless there are justifiable causes for such request.

The department which requests such additional allocations shall notify the Ministry of Finance and National Economy of the reasons for such request. Should the Ministry agree to appropriate the required allocation, the Minister of Finance and National Economy shall submit the required draft law to the Council of Ministers.

Article 28

If the nature of any expenditure so requires, certain allocations may be appropriated, by virtue of a law, for more than one financial year. Subject to the provisions of the aforesaid law, the allocations in respect of the above shall be appropriated in the successive annual State Budgets.

The expenditure mentioned in the foregoing article may be allowed a separate extraordinary budget which shall be effective for more than one financial year.

Article 29

No Government department may exceed the allocation for any development project for which appropriations are made by virtue of a law for a period of more than one year unless the said department is able to establish the presence of a surplus in the allocation of another project which is supplementary thereto. Consultations with respect to this matter shall be made with the Ministry of Development and Engineering Services in accordance with the instructions to be issued by the Minister of Finance and National Economy, provided always that such excess shall not result in raising the total costs of the project.

Article 30

No Government department may enter into any contract which may create a financial obligation that exceeds one financial year to the following financial year, unless the law provides for the appropriation of an allocation for this purpose for more than one financial year.

However, employment contracts, lease agreements and other contracts with respect to regular maintenance and supplies may be concluded for a period in excess of one financial year, provided that the term of the contract shall not be more than three years. Should the term of the contract be more than the aforementioned period, the prior consent of the Minister of Finance and National Economy should be obtained.

Article 31

Sums which have been actually collected or spent during any financial year shall

be deemed as revenues or expenditure of the said year.

Payments due for any works which have actually been done or supplies which have been delivered during the financial year shall be regarded as expenditure, even if procedures for payment of such due payments have not been completed before the end of the financial year for any reason whatsoever. Such payments shall be settled in accordance with the terms and conditions to be determined by the Minister of Finance and National Economy.

Article 32

If the handing over of any construction project is not effected according to schedule during the financial year, payments due with respect to such works may be settled after obtaining the prior consent of and subject to the terms and conditions to be determined by the Minister of Finance and National Economy, within the limits of the actual costs of the project in the budget of the financial year.

Article 33

Without prejudice to the provisions of Articles 31 and 32 any allocation which has not been spent, or which has not been decided to be spent during the financial year for which it has been appropriated shall become null and void.

SECTION TWO: ACCOUNTS AND ACCOUNTING CONTROL

Article 34

The Minister of Finance and National Economy shall issue an order stipulating the format of records and documents required for financial transactions and the terms and conditions to be complied with in respect of expenditure, collection and such other accounting procedure. The said order shall govern the auditing and

examination of Government accounts.

Article 35

The various Government departments shall maintain the records and documents mentioned in the foregoing article.

Article 36

The Ministry of Finance and National Economy shall appoint heads of finance departments in the various Government institutions. The said department heads shall be affiliated to the Ministry of Finance and National Economy and shall report thereto.

Article 37

Heads of finance departments in each ministry or directorate shall audit accounts and examine documents and papers of revenue, expenditure and such other accounts to ensure their authenticity and compliance with laws, regulations and financial instructions. They shall also examine monthly and quarterly statements of accounts as well as annual final accounts. They shall ensure that due revenues are collected on time and such collections are added to the revenues. They shall be required to investigate causes for delay of collection and shall examine payment vouchers and sign them before any payment is made.

Article 38

All heads of finance departments in each ministry or directorate shall furnish any officers undertaking any financial audit or examination with the information required therefrom and shall allow them access to all records, documents and papers required in the process of the said audit.

Article 39

Each ministry or directorate shall present monthly statements of accounts on revenues, expenditure and such other accounts to the Ministry of Finance and National Economy in accordance with the classification governing the issue of the State Budget and subject to the instructions issued by the Ministry of Finance and National Economy and on the dates prescribed by the said Ministry.

These statements of accounts shall be signed by the head of the finance department in the relevant ministry or directorate or whoever is deputed by him.

Article 40

The Minister of Finance and National Economy shall issue an order governing work in Government stores. Such orders shall determine such provisions which are pertinent to inventories, handling items and lay out of records and documents which shall be maintained by various Government departments. The order shall stipulate the details which shall be submitted by the said Government departments to the Ministry of Finance and National Economy and the dates for submission of such details. The Minister's order shall outline rules and regulations for inspection of stores and shall appoint the officers required for conducting such inspection and shall determine their powers.

CHAPTER FOUR: FINAL ACCOUNT

Article 41

The Minister of Finance and National Economy shall set forth the detailed rules to be pursued in respect of the preparation of final accounts. He shall also determine the dates for preparation of the said accounts.

Article 42

Each ministry and directorate shall prepare its final account for the financial year which ended to be submitted to the Ministry of Finance and National Economy on the dates fixed for this purpose.

Such final account shall be signed by the head of the finance department or whoever is deputed by him.

Article 43

The Minister of Finance and National Economy shall prepare the final account on the financial affairs of the State and shall prepare a report on the said account in a manner which may reflect the truth of the financial position in the financial year which ended. The final account and the report shall be submitted to the Council of Ministers.

Article 44

The final account on the financial affairs of the State for the year which ended shall be submitted to the National Assembly within five months following the end of the financial year and shall be approved by virtue of a resolution to be issued by the National Assembly. Such resolution, to which shall be attached the remarks of the National Assembly, shall be published in the Official Gazette.

Article 45

Any surplus arising from the final account of the financial year shall be transferred to the reserve fund and any deficit shall be charged thereto, provided that this may only be effected by law.

PART THREE

PROVISIONS WITH RESPECT TO INDEPENDENT AND SUPPLEMENTARY BUDGETS

Article 46

All provisions which are included in this Law shall apply to independent and supplementary budget and final accounts thereof.

However, the Minister of Finance and National Economy may, upon a proposal from the board of directors of any public organisation or any institution or municipality, lay down for any such organisation, institution or municipality, exclusive rules and regulations relating to budget and final account thereof, should the nature of activities thereof be inconsistent with the provisions of this Law.

Article 47

Each public organisation, institution or municipality shall submit monthly reports on progress or activities thereof and development of their financial position to the Minister of Finance and National Economy, provided that such reports shall include the details and information which he shall prescribe.

PART FOUR

FINAL PROVISIONS

Article 48

Any provisions which are inconsistent with this Law shall be revoked.

Article 49

The Minister of Finance and National Economy shall issue the ministerial orders required for the implementation of this Law.

Article 50

The Ministers, each in his respective capacity, shall implement this Law which shall come into effect from the date of its publication in the Official Gazette.

Signed: Isa bin Salman Al Khalifa
Amir of the State of Bahrain

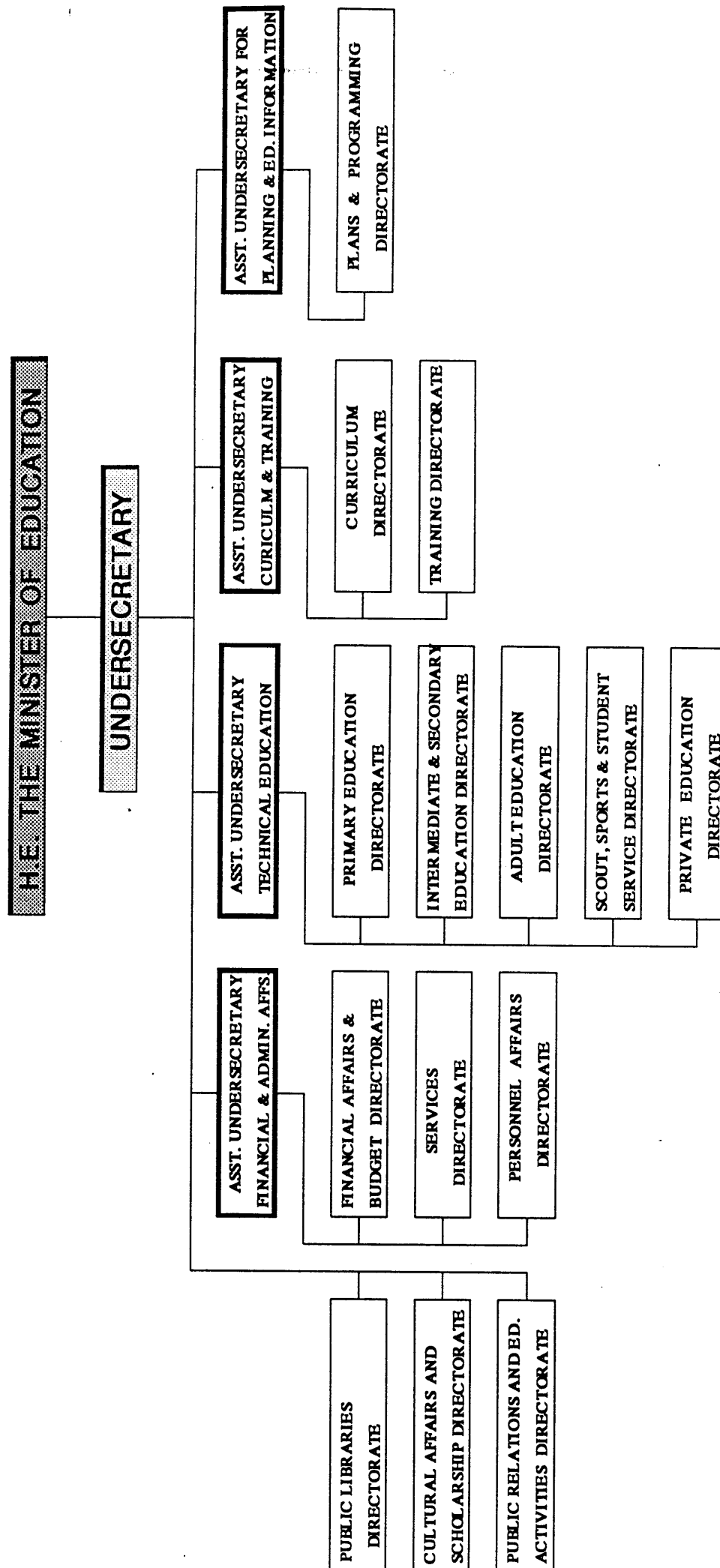
Issued at Rifaa Palace
on 20th Muharram, 1395 Hijra
Corresponding to 1st February 1975

Source: Translated from the Laws and Regulations issued in Bahrain during the period 1970-79 book, Volume 1, 1980.

APPE

(2)

APPENDIX 2:
MINISTRY OF EDUCATION
ORGANIZATION CHART



APPENDIX

(3)

APPENDIX 3 : MOE BUDGET CLASSIFICATION CODES STRUCTURE

CLASSIFICATION CODES			DESCRIPTION
MIN	PROG.	SUB-PROG.	
21			xxxx MINISTRY OF EDUCATION
21	1		xxx HEADQUARTERS
21	11	00	xxx MINISTER'S OFFICE
21	11	01	xx MINISTER'S OFFICE
21	12	00	xxx UNDERSECRETARY'S OFFICE
21	12	01	xx UNDERSECRETARY'S OFFICE
21	13	00	xxx EGYPTIAN MISSION
21	13	01	xx EGYPTIAN MISSION
21	14	00	xxx PUBLIC REL. & ED. ACTIVTS. DIR.
21	14	01	xx DIRECTOR'S OFFICE
21	14	02	xx PUBLIC RELATIONS
21	14	03	xx EDUCATIONAL ACTIVITIES
21	15	00	xxx SCHOLARSHIP & CULTRL. AFF. DIR.
21	15	01	xx DIRECTOR'S OFFICE
21	15	02	xx SCHOLARSHIPS
21	15	03	xx EDUCATIONAL ATTACHE
21	16	00	xxx PUBLIC LIBRARIES
21	16	01	xx DIRECTOR'S OFFICE
21	16	02	xx CHIEF'S OFFICE
21	16	03	xx LIBRARIES - ARAD
21	16	04	xx EAST RIFAA
21	16	05	xx HIDD
21	16	06	xx ISA TOWN
21	16	07	xx JIDHAFS
21	16	08	xx MANAMA
21	16	09	xx MUHARRAQ
21	16	10	xx SITRA
21	16	11	xx KARZAKAN
21	16	12	xx BUDAIYA
21	16	13	xx MUSICAL INSTRUMENTS
21	16	14	xx CHILDREN LIBRARIES
21	2		xxxx ADMINISTRATION & FINANCE AFFAIRS
21	21	00	xxxx AUS. OF ADMIN. & FINANCE AFFAIRS
21	21	01	xx AUS. OF ADMIN. & FINANCE AFFAIRS
21	22	00	xxxx PERSONNEL AFFAIRS DIRECTORATE
21	22	01	xx DIRECTOR'S OFFICE
21	22	02	xx RECRUITMENT & SALARIES
21	22	03	xx EMPLOYEE SERVICE & RELATIONS
21	22	04	xx TRAINING & ASSESSMENT

APPENDIX 3 (CONTINUED)

CLASSIFICATION CODES			DESCRIPTION
MIN	PROG.	SUB- PROG.	
21	23	00	xxx <u>FINANCIAL & BUDGET AFF. DIR.</u>
21	23	01	xx <u>DIRECTOR'S OFFICE</u>
21	23	02	xx BUDGET & FINANCE
21	23	03	xx PURCHASING & STORES
21	23	04	xx ADMINISTRATION
21	24	00	xxx <u>GENERAL SERVICES DIRECTORATE</u>
21	24	01	xx <u>DIRECTOR'S OFFICE</u>
21	24	02	xx MAINTENANCE
21	24	03	xx TRANSPORT
21	24	04	xx HOUSING
21	25	00	xxx <u>VOCATIONAL EDUCATION</u>
21	25	01	xx <u>VOCATIONAL EDUCATION</u>
21	3		xxx EDUCATIONAL PLANS/PROG. AFFAIRS
21	31	00	xxx <u>AUS.OFF. PLANNING & ED. INFORM.</u>
21	31	01	xx <u>AUS. OFF. PLANNING & ED. INFOR.</u>
21	32	00	xxx <u>PLANNING & PROGRAMMING DIRECTORATE</u>
21	32	01	xx <u>DIRECTOR'S OFFICE</u>
21	32	02	xx PLANNING & PROGRAMMING
21	32	03	xx EDUCAT. PROJ. ASSESS. & FOLLOW UP
21	32	04	xx EDUCAT. COSTS & FINANCIAL ANALYSIS
21	32	05	xx SCHOOL BUILDING SUPERVISION
21	33	00	xxx <u>EDUCATIONAL INFORMATION CENTRE</u>
21	33	01	xx <u>DIRECTOR'S OFFICE</u>
21	33	02	xx DOCUMENTATION
21	33	03	xx STATISTICS
21	34	00	xxx <u>RESEARCH & DEVELOPMENT CENTER</u>
21	34	01	xx <u>RESEARCH & DEVELOPMENT CENTER</u>
21	4		xxx GENERAL & TECHNICAL EDUCATION
21	41	00	xxx <u>AUS. OFF.- GENERAL & TECH. ED.</u>
21	41	01	xxx <u>AUS. OFF.- GENERAL & TECH. ED.</u>
21	42	00	xxx <u>PRIMARY EDUCATION DIRECTORATE</u>
21	42	01	xx <u>DIRECTOR'S OFFICE</u>
21	42	02	xx BOYS PRIMARY EDUCATION
21	42	03	xx GIRLS PRIMARY EDUCATION

APPENDIX 3 (CONTINUED)

CLASSIFICATION CODES			DESCRIPTION
MIN	PROG.	SUB- PROG.	
21	43	00	xxx <u>INTERMED. & SECONDARY ED. DIR.</u>
21	43	01	xx <u>DIRECTOR'S OFFICE</u>
21	43	02	xx INTERMEDIATE EDUCATION
21	43	03	xx SECONDARY EDUCATION
21	43	04	xx TECHNICAL EDUCATION
21	43	05	xx TECHNICAL STORES
21	43	06	xx COMMERCIAL EDUCATION
21	43	07	xx MAINTENANCE
21	43	08	xx EXAMINATION
21	44	00	xxx <u>ADULT EDUCATION DIRECTORATE</u>
21	44	01	xx <u>DIRECTOR'S OFFICE</u>
21	44	02	xx ILLITERACY
21	44	03	xx ADULT EDUCATION
21	45	00	xxx <u>PRIVATE EDUCATION DIRECTORATE</u>
21	45	01	xx <u>DIRECTOR'S OFFICE</u>
21	45	02	xx LIAISON & INSPECTION
21	45	03	xx PROGRAMS
21	46	00	xxx <u>SCOUT, SPORT & STUD. SERV. DIR.</u>
21	46	01	xx <u>DIRECTOR'S OFFICE</u>
21	46	02	xx PHYSICAL EDUCATION
21	46	03	xx SCOUTING
21	46	04	xx GIRL GUIDES
21	46	05	xx STUDENT SERVICES
21	5		xxx CURRICULUM & TRAINING
21	51	00	xxx <u>AUS. OFF. - CURRICULUM & TRAINING</u>
21	51	01	xx <u>AUS. OFF. - CURRICULUM & TRAINING</u>
21	52	00	xxx <u>TRAINING DIRECTORATE</u>
21	52	01	xx <u>DIRECTOR'S OFFICE</u>
21	52	02	xx RESEARCH UNIT
21	52	03	xx TRAINING UNIT
21	52	04	xx RESOURCES UNIT
21	52	05	xx REGISTRATION UNIT
21	52	06	xx EDUCATIONAL QUALIFICATIONS
21	53	00	xxx <u>CURRICULUM DIRECTORATE</u>
21	53	01	xx <u>DIRECTOR'S OFFICE</u>
21	53	02	xx ASSESSMENT UNIT
21	53	03	xx RESEARCH UNIT
21	53	04	xx LANGUAGES & HUMANITIES
21	53	05	xx MATHEMATICS & SCIENCE
21	53	06	xx COMMERCIAL & TECHNICAL
21	53	07	xx BOOKS & AIDS

APPENDIX 3 (CONTINUED)

CLASSIFICATION CODES			DESCRIPTION
MIN	PROG.	SUB- PROG.	
21	54	00	xxx EDUCATIONAL AIDS DIRECTORATE
21	54	01	xx DIRECTOR'S OFFICE
21	54	02	xx EDUCATIONAL RESOURCES
21	54	03	xx AUDIO VISUAL AIDS
21	54	04	xx TELEVISION UNIT
21	54	05	xx LABORATORIES
21	55	00	xxx UNESCO COMMITTEE
21	55	01	xx UNESCO COMMITTEE
21	56	00	xxx ADULT EDUCATION TRAINING CENTER
21	56	01	xx ADULT EDUCATION TRAINING CENTER